IBM Tealeaf cxOverstat
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cxOverstat User Manual

Note
Before using this information and the product it supports, read the information in "Notices" on page 71.

This edition applies to version 9, release 0, modification 0 of IBM Tealeaf cxOverstat and to all subsequent releases and modifications until otherwise indicated in new editions.

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cxOverstat User Manual

IBM Tealeaf cxOverstat enables the review of the aggregated behaviors of all visitors to your web application. Through your web browser, you can review heat maps, compare how different segments of customers are interacting with your website, identify top clicks, and form data for visitors to your web application over a configured set of dates, enabling insightful analysis of what is occurring on each page of your site.

The IBM Tealeaf cxOverstat User Manual provides information about how to install, configure, and use the IBM Tealeaf cxOverstat product.

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Chapter 1. Overview

With IBM Tealeaf cxOverstat, you can visualize the behaviors of your visitors on each page of your web application. Directly from Browser-Based Replay or Snapshot, you can select a page and display multiple features as overlays directly over the selected page. The highly visual reports allow for rapid and intuitive insights into visitor behavior. Interactive drilldowns for each report can be used to quickly explore the data by using the familiar tools of the Tealeaf system.

By identifying the locations on a page of greatest interest, you can begin to quantify and explore how and why negative outcomes are occurring on specific pages. For example, if Step 3 of a business process illustrates that 50% of customers are abandoning the process, then the web development team can focus its attention on improving the usability of the Step 3 page. In this manner, you and your enterprise can make basic, significant improvements to your web application to provide a richer and easier customer experience.

In addition to monitoring the current activities on a web application, IBM Tealeaf cxOverstat can be used as an important development tool for performing data-driven measurements of the impact of new features and other changes to the web application.

IBM TealeafcxOverstat answers the following basic question: What is challenging about this page?

Note: IBM Tealeaf cxOverstat is a separately licensable component of the IBM Tealeaf CX platform. For more information about IBM Tealeaf cxOverstat, please contact your IBM Tealeaf representative.

What's new in cxOverstat

An overview of new features in cxOverstat 9.0.2.

User Interface Redesign

In order to maintain a consistent look and feel across IBM Commerce products, Tealeaf initiated a redesign of cxOverstat. Product structure remains the same, while certain elements received a facelift. Areas that underwent changes include the login page, dashboard, search, session list and top navigation menu.

Enhanced Overlay Render Fidelity

cxOverstat now stores images and CSS style sheets at the time of capture. Thus, when your snapshot is rendered, it looks exactly like the website did when you captured the snapshot, even if it contains images and CSS style sheets that are no longer displayed on the website. You can also capture additional page attributes such as doc type and browser dimensions to improve render fidelity and support responsive web design.

cxOverstat Mobile

You can now access data for customers using native mobile technology through cxOverstat Heat Maps, Comparison Analytics, Link Analytics, Form Analytics and

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Color Contrast Analytics overlays. Tealeaf will record data on taps from mobile users, so you can get a better idea of how customers are using your native mobile applications. Taps identify areas where customers touched their screen, regardless of whether the element was responsive.

cxOverstat Snapshot

With cxOverstat Snapshot you can capture page states from live web pages and save them to the Snapshot Gallery. Saving captured page states to the Snapshot Gallery simplifies access to cxOverstat data for selected web pages. cxOverstat Snapshot captures the current state of a cxOverstat-enabled web page, including all of the data that is typically displayed in cxOverstat overlays.

Features and benefits

An overview of IBM Tealeaf cxOverstat features and benefits and how IBM Tealeaf directly impacts certain factors.

IBM Tealeaf cxOverstat provides the following features:

- Visualize usage patterns across the entire web application
- Gain awareness of exactly how a visitor uses a specific page
- Evaluate each process to monitor visitor success rate in completing it
- Identify the parts of a page that are most frequently used and that are largely unused
- Predict how visitors will use the web application in the future
- Apply that predictive insight to improve the overall customer experience

Toward the above features, IBM Tealeaf cxOverstat provides the following benefits:

- Methods for improving form conversion rates through Form Analytics
- Optimization of landing pages that are based on Tealeaf replay through Link Analytics
- Enhancement of object placement on the page through Heat Maps
- Compare captured dimensions and dimension values for a page through Comparison Analytics
- Identify the areas of a web page that are most consistently displayed in the visitor's browser window through Attention Maps

How cxOverstat works with other Tealeaf products

How IBM Tealeaf cxOverstat interacts with IBM Tealeaf RealiTea Viewer, cxReveal, mobile sessions, and active sessions.

RTV

The IBM Tealeaf CX RealiTea Viewer is a stand-alone application that is separately installed for Windows desktops. See "RealiTea Viewer (RTV) User Manual" in the *IBM Tealeaf RealiTea Viewer User Manual*.

Note: IBM Tealeaf cxOverstat features are not available through the IBM Tealeaf CX RealiTea Viewer.

cxReveal

Note: IBM Tealeaf cxReveal users cannot access the IBM Tealeaf cxOverstat overlays through Browser-Based Replay. To use IBM Tealeaf cxOverstat, you must have an IBM Tealeaf cxImpact user account, which is configured to enable access to Browser-Based Replay. See "CX User Administration" in the *IBM Tealeaf cxImpact Administration Manual*.

Mobile Sessions

For mobile sessions, IBM Tealeaf cxOverstat has the following limitations:

- IBM Tealeaf cxOverstat does not support the capture of mobile sessions that are initiated from mobile native applications.
- When IBM Tealeaf cxOverstat overlays are displayed, the mobile skin that is shown in replay is disabled. Replay of mobile gestures is also disabled.

All other IBM Tealeaf cxOverstat features are available for mobile-based sessions.

Active Sessions

Since IBM Tealeaf cxOverstat events are not published until the end of each session, IBM Tealeaf cxOverstat overlays do not contain any data from active sessions.

Web Browser Settings

To track cxOverstat related data, visitors to your web application must have JavaScript enabled in their web browser.

How cxOverstat works

IBM Tealeaf cxOverstat captures visitor interactions with web pages and turns this information into accessible data. It requires the deployment of a lightweight JavaScript to every page of your web application where you want to capture visitor behavior.

Through the IBM Tealeaf CX UI Capture SDK JavaScript, visitor actions, such as mouse movements and mouse clicks, are captured as user interface events through the browser. These events are bundled and forwarded to Tealeaf, where they are captured, processed, and analyzed for use in visualization and reporting data.

Note: IBM Tealeaf cxOverstat captures 100% of the available usability data from sessions that are captured by Tealeaf. There is no data sampling.

Overlays:

Tealeaf users can access IBM Tealeaf cxOverstat directly through Browser Based Replay (BBR) and the Snapshot Gallery, both of which are available through the Tealeaf Portal. From the **Overlays** menu, Tealeaf users can apply any of the IBM Tealeaf cxOverstat displays to the current page. The overlays include updated statistical information, which is based on the most recent compilation of user behavior statistics that are submitted to Tealeaf for the current page.

Events:

Usability events need dimensional data to function properly. As IBM Tealeaf cxOverstat anonymously collects information for reporting purposes, events are used to specify certain conditions, such as period of time, to record information. IBM Tealeaf cxOverstat provides a list of primary reporting events that are used to report data, and with each event comes a set of pre-configured dimensions.

Dimensions:

A dimension is a tracked element of contextual data, such as which browser a customer is using, that is recorded when an event occurs. It is necessary to use dimensions to capture data, and Tealeaf provides a set of pre-configured dimensions that are used to store client data.

Except for the IBM Tealeaf CX UI Capture SDK JavaScript, no other installation is required.

- See "UI Capture j2 Guide" in the *IBM Tealeaf UI Capture for j2 Guide*.

Overview of dimensions

In Tealeaf, a dimension is a tracked element of contextual data, which is recorded when an instance of an event occurs. For example, when an event records an application error, you might want to record as contextual information the type of browser from which it was sourced. Browser type information is stored in a dimension.

- For more information about dimensions, see "TLTopic - Dimensions" in the *IBM Tealeaf Topics*.

Since IBM Tealeaf cxOverstat data is captured by using Tealeaf events, you can apply the dimension filters that are associated with the set of IBM Tealeaf cxOverstat events. These events are used to track usability data that is forwarded to Tealeaf for capture. For some of these events, dimensions are already associated with them. These dimensions are available through the IBM Tealeaf cxOverstat overlays.

- You can apply up to eight dimensions to an overlay.
- For more information about the IBM Tealeaf cxOverstat events and dimensions, see "Eventing for cxOverstat" in the *IBM Tealeaf Event Manager Manual*.

You might be interested in associating more dimensions with the IBM Tealeaf cxOverstat events so that you can filter your overlays by other contextual information.

- For more information about creating dimensions, see "TEM Dimensions Tab" in the *IBM Tealeaf Event Manager Manual*.

Default dimensions

By default, the following dimensions are applied as a dimension filter for drill-down reports and searches:

Note: These dimension filters are not visible in the display.

1. Step - ScreenView
2. Step - ScreenView URL
   - If the ScreenView URL is not provided in the current page, the value is taken from the preceding valid value.
3. Any dimensions that power the selected overlay.

- See "Eventing for cxOverstat" in the *IBM Tealeaf Event Manager Manual*.

Chapter 2. Installing and deploying cxOverstat

Certain steps must be taken when installing IBM Tealeaf cxOverstat on a new or existing system.

If you are installing IBM Tealeaf cxOverstat on a new system, IBM Tealeaf cxOverstat functionality in the Tealeaf® Portal is automatically enabled through your license key.

Note: The IBM Tealeaf cxOverstat JavaScript must be installed and deployed through your web server. See Recommended deployment.

Note: If you are licensing IBM Tealeaf cxOverstat for an existing Tealeaf system, you must run the Tealeaf Upgrader, apply your license, and then choose to install IBM Tealeaf cxOverstat, which enables access to the event objects required for correct operation. See "Upgrading Tealeaf Software on a Server" in the *IBM Tealeaf CX Upgrade Manual*.

Prerequisites

To use IBM Tealeaf cxOverstat, you must have access to browser-based replay, an HTML5 supported browser, an installed UI Capture j2 JavaScript solution, and sufficient time to allow the collection of statistically significant usability data. Most high-volume sites have sufficient site visitors to gather meaningful data for analysis within a few minutes. Low-volume sites might have to wait a few days to obtain meaningful insights.

The following table lists the prerequisites that are required to use IBM Tealeaf cxOverstat.

Table 1. IBM Tealeaf cxOverstat Prerequisites

cxOverstat Prerequisite	Description
IBM Tealeaf CX and cxImpact	IBM Tealeaf CX and cxImpact must be installed and configured. For more information, see *IBM Tealeaf CX Installation Manual*.
Access to Browser Based Replay	Each user of IBM Tealeaf cxOverstat must have an IBM Tealeaf cxImpact user account that has permission to access Browser Based Replay. Browser-based Replay is used to replay visitor sessions and can be used to view cxOverstat related information through a set of overlays. cxOverstat overlays are not available in CX RealiTea Viewer. **Note:** IBM Tealeaf cxOverstat is not supported for users that have permission to use IBM Tealeaf cxReveal only.

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Table 1. IBM Tealeaf cxOverstat Prerequisites (continued)

cxOverstat Prerequisite	Description
Supported HTML5 web browser	To view IBM Tealeaf cxOverstat overlays, you must use a supported web browser. A browser that has HTML5 enabled is required to view cxOverstat related data. The following web browsers are supported by cxOverstat: • Microsoft Internet Explorer web browser versions 9 - 11 • Firefox versions 31 - 36 • Chrome versions 31 - 41 **Note:** The reporting features of IBM Tealeaf cxOverstat are limited by the HTML5-based data that is captured by UI Capture j2. For more information, see *IBM Tealeaf CX UI Capture j2 Guide*. **Note:** The Tealeaf Portal does not support access from mobile browsers. **Note:** This list of browsers is more restrictive than the browsers supported for access to the Tealeaf Portal. See "Logging in to the Tealeaf Portal" in the *IBM Tealeaf cxImpact User Manual*.
CX UI Capture SDK JavaScript	Before you can use IBM Tealeaf cxOverstat, you must install the IBM Tealeaf CX UI Capture SDK JavaScript solution on your web server and add references to include the JavaScript on every page you want to monitor on your web application. **Note:** Adding IBM Tealeaf cxOverstat JavaScript references to your web application requires developer-level skills and access to the application on the web server that you are monitoring. See Chapter 2, “Installing and deploying cxOverstat,” on page 7.
Allow time to elapse to gather data	Before you use IBM Tealeaf cxOverstat data, you must allow a sufficient time period to elapse for a statistically significant set of usability data to be gathered from visitor sessions. This period depends on the volume of traffic on your web application. It is best to gather a minimum of 1000 clicks per page before using the data that is provided by cxOverstat.

Deploying cxOverstat

The following procedure describes how to deploy IBM Tealeaf cxOverstat.

Tealeaf recommends that you first deploy IBM Tealeaf cxOverstat in a development or test environment. When you verify functionality, you can move the configuration to your production environment.

IBM Tealeaf CX and cxImpact must be installed and configured. For more information, see *IBM Tealeaf CX Installation Manual*.

If you are installing IBM Tealeaf cxOverstat on a new system, IBM Tealeaf cxOverstat is automatically enabled through your license key.

Complete the following steps to deploy cxOverstat to your IBM Tealeaf environment.

1. Log on to the IBM Tealeaf Report Server.
2. Run `<Tealeaf>\Enablers\cxOverstat\setup.exe` to start the cxOverstat installer. Replace `<Tealeaf>` with the folder name for your IBM Tealeaf installation.
3. Select the language that you want to use for the installation screens and click **OK**.
4. From the Welcome screen, click **Next** to continue to the License screen.
5. In the License screen, review the license terms and click **I accept the terms**; then, click **Next** to continue.
6. From the Installation screen, click **Install** to start the installation.
7. From the Installation Complete screen, click **Finish**.
8. If the IBM Tealeaf CX UI Capture SDK JavaScript solution is not already deployed to your web server, do so now.
9. Add an IBM Tealeaf cxOverstat JavaScript reference to each web page that you want to capture cxOverstat data. Adding IBM Tealeaf cxOverstat JavaScript references to your web application requires access to the application on the web server that you are monitoring. For more information on developing IBM Tealeaf cxOverstat JavaScript reference, see "JavaScript deployment."
10. Log in to the Tealeaf Portal and click **Configure** > **Event Manager**.
11. From **Event Manager**, edit the `Step - ScreenView URL` dimension. Make sure that **Values to Record** is set to **Whitelist Only**; then, create a whitelist for the dimension. **Whitelist Only** is the default setting for the **Values to Record** option. A whitelist helps to control the amount of cxOverstat data that is recorded. For more information about creating a whitelist, see the *IBM Tealeaf CX Event Manager Manual*.
12. Select the events and dimensions that are related to cxOverstat that you want to track.

    For more information on creating and configuring events, see the *IBM Tealeaf Event Manager Manual*.

After the installation procedure is complete, a sufficient time period must elapse for a statistically significant set of usability data to be gathered from visitor sessions. This period depends on the volume of traffic on your web application. It is recommended to gather a minimum of 1000 clicks per page before you use the data that is provided by cxOverstat.

JavaScript deployment

Tealeaf UI Capture for j2 is used to capture the cxOverstat-related user interaction with a web page.

Each web page that is captured must contain JavaScript, which captures the user interaction with the web page and sends the data to the Tealeaf capture server.

Depending on the size and volume of your web application, you can choose to enable the tracking of all pages on your web application or a selection of pages. For example, important pages such as landing pages, check-out pages, and the pages of other key business processes are good candidates for tracking. IBM Tealeaf cxOverstat can be used with HTTP and HTTPS pages.

Note: Do not install the IBM Tealeaf cxOverstat JavaScript on any page that uses an older version of the UI Capture SDK that does not explicitly support IBM Tealeaf cxOverstat. For supported versions, IBM Tealeaf cxOverstat SDK and IBM Tealeaf CX UI Capture for AJAX SDK can coexist on the same page. See "Client Framework Versions" in the *IBM Tealeaf Client Framework Data Integration Guide*.

Pages are tracked by adding the IBM Tealeaf CX UI Capture j2 solution. Place references to the JavaScript as high as possible on each web page that requires usability tracking. The lowest location on the page where the JavaScript references can be inserted is just after the opening <BODY> tag. This location is useful if you are not tracking all of the pages of your web application.

Note: IBM Tealeaf cxOverstat requires the IBM Tealeaf CX UI Capture SDK solution. See "UI Capture j2 Guide" in the *IBM Tealeaf UI Capture for j2 Guide*.

- IBM Tealeaf cxOverstat is not compatible with the older version of IBM Tealeaf CX UI Capture for AJAX.

For more information about deployment and verification instructions, see "UI Capture j2 Guide" in the *IBM Tealeaf UI Capture for j2 Guide*.

Include pages

Depending on the size and volume of your web application, you can choose to enable the tracking of all pages on your web application or a selection of pages.

For example, important pages such as landing pages, check-out pages, and the pages of other key business processes are good candidates for tracking.

IBM Tealeaf cxOverstat can be used with HTTP and HTTPS pages.

Note: Do not install the IBM Tealeaf cxOverstat JavaScript on any page that uses an older version of the UI Capture SDK that does not explicitly support IBM Tealeaf cxOverstat. For supported versions, IBM Tealeaf cxOverstat SDK and IBM Tealeaf CX UI Capture for AJAX SDK can coexist on the same page. See "Client Framework Versions" in the *IBM Tealeaf Client Framework Data Integration Guide*.

Include location on the page

Pages are tracked by adding the IBM Tealeaf CX UI Capture SDK solution.

Place references to the JavaScript as high as possible on each web page that requires usability tracking.

- The lowest location on the page where the JavaScript references can be inserted is just after the opening <BODY> tag. This location is useful if you are not tracking all of the pages of your web application.

Note: IBM Tealeaf cxOverstat requires the IBM Tealeaf CX UI Capture SDK solution. See "UI Capture j2 Guide" in the *IBM Tealeaf UI Capture for j2 Guide*.

- IBM Tealeaf cxOverstat is not compatible with the older version of IBM Tealeaf CX UI Capture for AJAX.

Gathered data

Most high-volume sites have sufficient site visitors to gather meaningful data for analysis within a few minutes. Low-volume sites might have to wait a few days to obtain meaningful insights.

Data Retention

cxOverstat data retention is customizable, allowing customers to minimize data storage size by choosing how long their data will be stored. By default, hourly data is retained for 3 days, while daily data is retained for 90 days.

To change the default data retention time period in the Tealeaf Portal, go to Tealeaf > Portal Management > CX Settings > Data Retention. Click on the value you want to change. Enter the new value in the form near the bottom of the page, and click **Save**.

cxOverstat daily aggregation defaults to daily through previous day. This ensures that cxOverstat daily data is always available as of yesterday, and a request for information will use a daily table for all date duration other than the current day.

Note: For current cxOverstat customers who upgrade to 9.0.2, the next time the daily aggregation runs, it will start to back-populate the cxOverstat daily data table and the customer could see increased processing on their SQL servers. The recommendation for large customers is to process this over the weekend.

Defining cxOverstat as the Tealeaf start page

Users can define the start page that appears when they log in to the Tealeaf Portal.

To define the start page:

1. Log in to the Tealeaf Portal.
2. Click **CX User Administration** in the left navigation.
3. Select **Users**.
4. Choose a user profile to work with. A gray box appears in the bottom half of the page.
5. Click the dropdown next to Start Page and select cxOverstat Gallery to enable Tealeaf to automatically open the Snapshot Gallery when you log in to Tealeaf.
6. Click **Save**.

Chapter 3. Using cxOverstat overlays

cxOverstat overlays help you visualize customer interactions with your web pages that are enabled with cxOverstat.

With IBM Tealeaf cxOverstat, you can visualize the behaviors of your visitors on each page of your web application. From Browser-Based Replay or the Snapshot Gallery, you can select a page and display multiple features as overlays directly over the replayed page. The highly visual reports allow for rapid and intuitive insights into visitor behavior and gives you the ability to customize a report by filtering the reported data.

Overview: cxOverstat overlays

You can display a cxOverstat overlay while you are viewing a session in Browser Based Replay (BBR) or while you are viewing snapshots in the Snapshot Gallery.

To open a cxOverstat overlay:

1. Open a session in BBR or a snapshot in the Gallery.
2. From the **Overlays** menu, select the overlay that you want to see.

When an overlay is displayed, you can use the provided interface to customize the report. For more information, see Chapter 4, "cxOverstat interface," on page 41.

The following table describes the overlays that are available through cxOverstat.

Table 2. cxOverstat Overlays

cxOverstat Overlay	Description
Form Analytics	The Form Analytics overlay evaluates the effectiveness of a form in capturing entered information and how well visitors are able to complete it. In addition to information about data entry, the Form Analytics overlay can monitor dwell time on individual fields. If the form was not completed, this might be an indicator of customer struggle and drop-off rates. For more information, see "Using the Form Analytics overlay" on page 14.
Link Analytics	The Link Analytics overlay indicates the most frequently clicked links and hovered links on a page. Link Analytics overlays show the relative popularity of links, which informs web developers of any need to change the layout of a specific page or the overall navigation for the web application. For more information, see "Using the Link Analytics overlay" on page 22.

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Table 2. cxOverstat Overlays (continued)

cxOverstat Overlay	Description
Comparison Analytics	With the Comparison Analytics overlay, you can visually identify customer interaction with a web page and create custom reports by filtering captured metrics and segmenting dimension data within the overlay. You can create a single report that displays the patterns of two metrics or create a more detailed report that compares how different groups of users are interacting with the web page. From here, you can identify any usability issues that might have an impact on a specific user segment. For more information, see "Using the Comparison Analytics overlay" on page 25.
Heat Map	The Heat Map overlay identifies the regions of a page where visitors click or hover, regardless of whether there is anything to click or not. Heat Maps provide a useful method of identifying usability flaws; for example, if visitors are clicking a large logo at the top of the page, there might be expectations of a link back to the site's home page. For more information, see "Using the Heat Map overlay" on page 30.
Attention Map	The Attention Map displays color bands within the browser window to identify the areas that are most consistently shown to visitors of the page. These color bands can be used to evaluate the objects on the page that are most frequently placed in front of the visitor, and the ones that are not receiving much attention. For more information, see "Using the Attention Map overlay" on page 35.
Accessibility Analytics	The Accessibility Analytics overlay evaluates the type of website issues that might affect users with visual, auditory and physical impairment. Accessibility Analytics uses pins to show where issues exist on a cxOverstat-enabled web page.
Contrast Analytics	The Contrast Analytics overlay evaluates difficulties users might encounter when viewing items on a website due to color contrast. Contrast Analytics uses pins to show where color contrast issues exist on a cxOverstat-enabled web page.

Using the Form Analytics overlay

The Form Analytics overlay helps to evaluate the effectiveness of a form that enables visitors to enter data.

Based on the data-driven metrics on dwell time for specific fields, you can use the Form Analytics overlay to evaluate if visitors are confused by individual fields and if they are quitting a process because of the form. Only form fields that are visible on the page are displayed.

Note: The data that a customer enters in a form field is not captured by IBM Tealeaf cxOverstat.

Data might be collected as part of other client-side capture solutions that might have been deployed with your web application.

Viewing the Form Analytics overlay

You can view the Form Analytics overlay to analyze data, as well as the Form Funnel report.

To open the Form Analytics overlay:

1. Open a session in BBR or a snapshot in the Gallery.
2. Click **Overlays**.
3. Select **Form Analytics**.

The default Form Analytics report displays the Form Funnel report.

- To reposition the report in the overlay, click and drag the bar at the bottom of the report to move it from one side of the screen to the other.
- In the top toolbar, you can apply dimensional filters to the displayed overlay. See Chapter 4, “cxOverstat interface,” on page 41.
- Next to the dimension filter, click the **Calendar** button to change the range of dates that are displayed in the overlay data. See Chapter 4, “cxOverstat interface,” on page 41.

The Form Analytics overlay contains three reports:

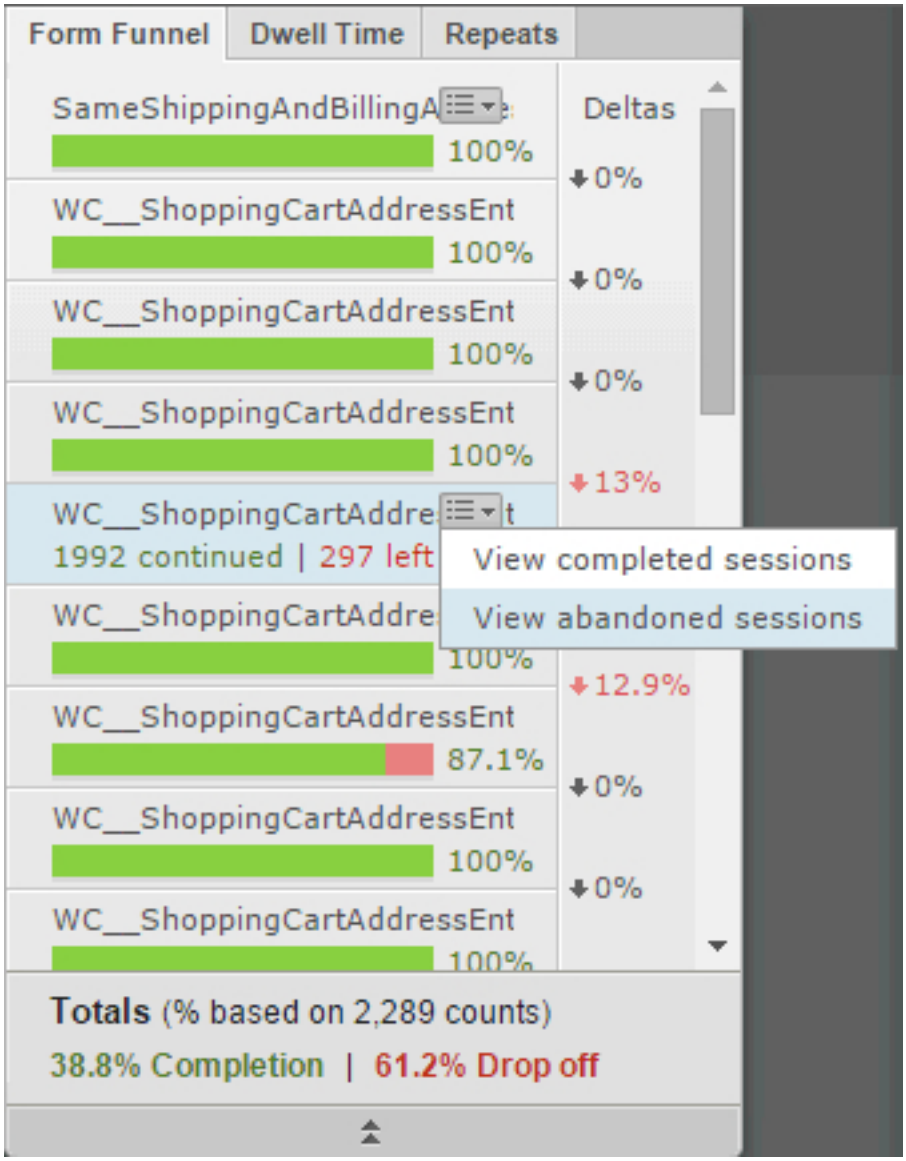
- “Modifying the Form Analytics overlay view”
- “Dwell Time report” on page 18
- “Repeats report” on page 20

Modifying the Form Analytics overlay view

The Form Funnel report shows the percentage of visitors who accessed each field based on the number of visitors who started filling out the form. The number of visitors who started filling out the form is defined as the count of entries in the first form field that is not disabled.

For example, if 500 people view a page and 100 of the visitors enter a value in the first enabled field in a form, then the value 100 is the denominator for calculations. If only 60 of those 100 visitors were able to complete the form, the drop off value is 40%, and the completion value is 60%.

The following graphic is an example of a Form Funnel report:



The report displays the completion percentage of each field. You can hover your mouse over the field to view the exact number of users that continued to the next field and the number of users that abandoned the form before they went to the next field. The field with the highest drop-off rate is displayed in bold and red colored text.

Note: The delta for each field is the drop-off rate for the field and represents the number of users that continued from the previous field but left the page without going to the next field.

Note: If the pattern of a Form Funnel report appears erratic and does not funnel from top to bottom, it is likely that users are skipping form fields on the page. If you remove skipped form fields from the report, the pattern of the report funnels from top to bottom.

The report also displays the total completion and drop-off rates for the entire form. This information can help optimize a form to improve the conversion rate. For

example, if some fields are rarely getting completed and your drop-off rate is too high, you might infer that the fields should be redesigned, made optional, or removed from the form.

To see the object on the page to which an item in the report corresponds, move the mouse over the name in the left column. The object on the page is highlighted in the replay window.

For more information on the rates that are displayed at the bottom of the form, see "Conversion rates" on page 22.

You can also exclude, include, or reorder a field in the report:

- To exclude the selected field from the report, click the **-** icon. The data on the field is replaced by the `Excluded` string.
- To include an excluded field again, click the **+** icon.
- To reorder a field that is displayed in the report, use your mouse to drag the left margin of the field to the new location in the report. The completion and drop-off rates will automatically adjust after the field is moved.

You can also view completed and abandoned sessions for a selected field in the Form Funnel report.

To view a session from the Form Funnel report:

1. Move your cursor over a form field in the Form Funnel report.
2. Click the session view icon to the right of the field name.
3. After you click the session view icon, select **View Completed Sessions** or **View Abandoned Sessions**. Depending on the information that was submitted to the form, only one session type might be available for a specific form field. For information about the requirements for each type of session, see "Viewing form completion" on page 18 and "Viewing form analytics reports."

From the Session List, you can analyze or replay the sessions.

Viewing form analytics reports

The Form Funnel report shows the percentage of visitors who abandoned or completed sessions for a selected field.

Viewing form abandonment:

For a selected field, you can generate a set of sessions that meet the following criteria for the specified date range.

1. The first active form field is present (Whitelist first form field Target ID dimension value).
2. The selected form field is not present (Blacklist selected form field Target ID dimension value).

Note: Dimension filters can be applied to the Form Analytics overlay.

Viewing form completion:

For a selected field, you can generate a set of sessions that meet the following criteria for the specified date range.

1. The first active form field is present (Whitelist first form field Target ID dimension value).

2. The selected form field is present (Whitelist selected form field Target ID dimension value).

Generated reports are displayed as a set of sessions in the Portal.

Viewing form completion

The Form Funnel report shows the percentage of visitors who completed sessions for a selected field.

For a selected field, you can generate a set of sessions that meet the following criteria for the specified date range:

1. The first active form field is present (Whitelist first form field Target ID dimension value).
2. The selected form field is present (Whitelist selected form field Target ID dimension value).

Note: Dimension filters can be applied to the Form Analytics overlay.

Generated reports are displayed as a set of sessions in the Portal.

Dwell Time report

The Dwell Time report displays the average dwell time in seconds for each field in the form. The field with the highest dwell time is displayed in red and bold text.

Figure 1. Dwell Time

Note: Unique identifiers are provided for each selectable object on the page. See "Building web Applications with Tealeaf in Mind" in the *IBM Tealeaf CX Installation Manual*.

The names of each field in the form are displayed with a bar graph and the average amount of time, in seconds, that the field is focused on. The example Dwell Time report shows that the `billing:postcode` field has an average dwell time of 14 seconds.

Note: If this field is the default-selected field when the web page loads, the dwell time for that field might not be significant. Visitors might be reading the page while the cursor is in this field. If this field is not selected by default, it can indicate that the field is hard for visitors to resolve. For example, there might be some confusion around the instructions, or the field might be asking for information that the visitor was not instructed in an earlier step to provide.

To see the object to which an item corresponds, move the mouse over the name of the field in the report. You can also exclude a field by placing the mouse cursor over the field; then, click the **-** icon next to the field. When the field is excluded, the data for the field is displayed as `Excluded`. To include the field back into the report, click the **+** icon.

You can also reorder the report by dragging the left margin of a field up or down in the list.

Repeats report

IBM Tealeaf cxOverstat can track the number of times a user clicks in each field more than once. A counter is used for each field to track how many extra times a user placed the cursor in the field.

For example, if a user clicked in a field 3 times, the counter records two repeats. The Repeats report displays each field on the web page and how many times after the initial click that each field was clicked again. A high number of repeated clicks can indicate a problem with the field or the instructions for the field. The field with the highest number of clicks is displayed in red and bold text.

In the following example, the **Repeats** report displays the average repeated click-rate for each form field that is captured on the page.

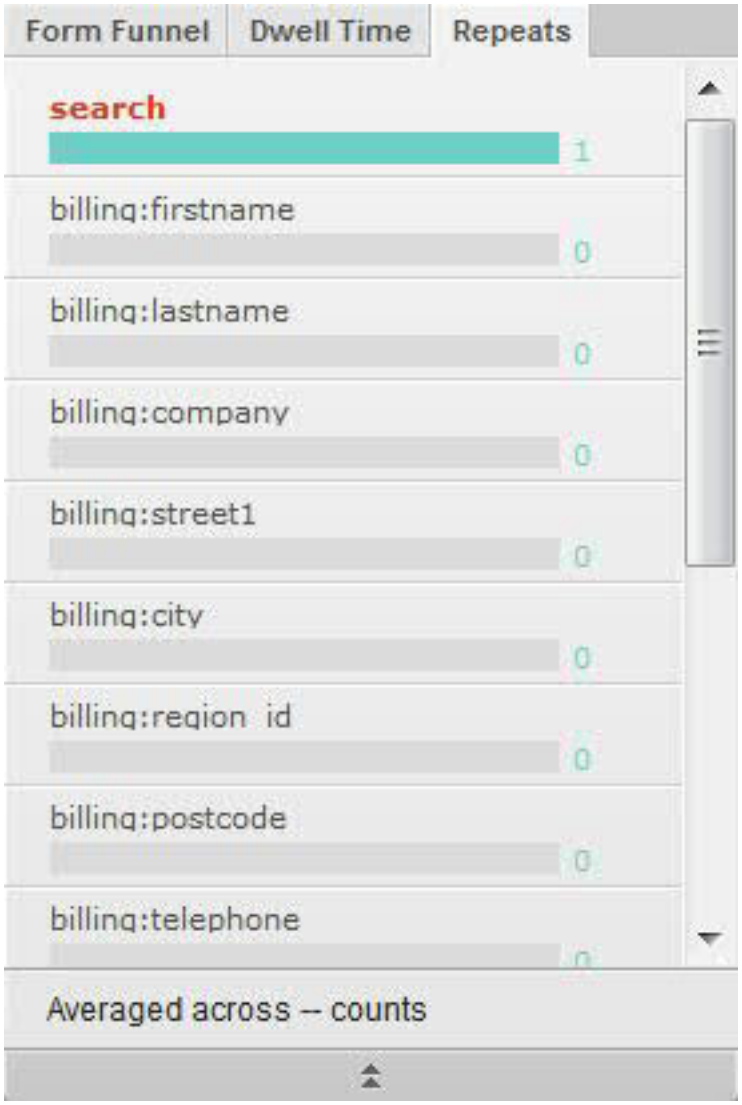


Figure 2. Repeats

The names of each field are defined in the HTML object for the field.

Note: Provide unique identifiers for each selectable object on the page. See "Building web Applications with Tealeaf in Mind" in the *IBM Tealeaf CX Installation Manual*.

The names of each field in the form are displayed with a bar graph and the number of extra times that the user placed the cursor in the field.

To see the object to which an item corresponds, move the mouse over the name of the field in the report. You can also exclude a field by placing the mouse cursor over the field; then, click the **-** icon next to the field. When the field is excluded, the data for the field is displayed as `Excluded`. To include the field back into the report, click the **+** icon.

You can also reorder the report by dragging the left margin of a field up or down in the list.

Conversion rates

Conversion rate is the percentage of all unique visitors who take a wanted action upon visiting your site. Most companies typically think of conversion rate in the context of making a purchase or transaction, but the wanted action can also be submitting a sales lead, viewing a key page of the site, downloading a white paper, or some other measurable action.

The following conversion rates are reported at the bottom of each Form Analytics report:

Term **Description**

Completion
This metric indicates the percentage of visitors who completed the form that is compared to the number of visitors who started the form.

Deltas This metric indicates the percentage of visitors who completed a previous field but abandoned the form before they entered a value for the current field.

Drop Off
This metric indicates the percentage of visitors who dropped off the form before they completed it when compared to the number of visitors who started the form.

Averaged across X counts
This metric is the focus-count value of the first active form field and is used as the denominator for the completion percentage calculations. For each form field, the focus count is divided by X, which returns the completion percentage.

Using the Link Analytics overlay

The Link Analytics overlay displays numeric information about the links that visitors interact with on the current page.

This overlay is useful in assessing the order and positioning of links on the page to ensure that visitors are being properly cued to select the objects of greatest utility. You can also export the data to the report builder for further analysis.

Note: For a selected page, the Link Analytics overlay contains no data until at least one selectable area on the page is clicked.

When the Link Analytics overlay is displayed, you can customize the report by:

- Applying a new range of dates for the report (see “Changing the date range” on page 42)
- Toggling which metrics are displayed (see “Applying metrics to a cxOverstat report” on page 42)
- Customize the frequency type and the number of elements that are displayed for each metric. For example, you can configure the report to display the most occurrences, the least occurrences, and also specify the maximum number of elements that are displayed in the report (see “Customizing Link Analytics elements” on page 44).
- Filtering the data by dimension types and dimension values (see “Filtering dimension values within an overlay” on page 44)

Viewing the Link Analytics overlay

Link Analytics is available in BBR or the Snapshot Gallery when you view a page that was configured to capture cxOverstat data.

To access Link Analytics:

1. Open a session in BBR or a snapshot in the Gallery.
2. Select a page where IBM Tealeaf cxOverstat data is collected.
3. Click **Overlays**.
4. Select **Link Analytics**.

The Link Analytics overlay enhances the heat map overlay with quantitative data that indicates the percentage of clicks for each pinned object on the page as compared to the total number of clicks per page.

Viewing click-rate metrics

When you hover the mouse over the pushpin, the object for that pushpin is highlighted. If you click the pushpin, the analytics for the object are displayed.

The following analytics are recorded for the object:

Table 3. Pushpin object data summary

Analytic	Description
`Click-rate`	Click-rate captures the number of times that the object was clicked compared to the total number of clicks for the web page. The percentage that is displayed is calculated by dividing the number of clicks that are recorded for the object by the total number of clicks for the page. The object data also displays how many times the object was clicked.
`Hover-rate`	Hover-rate captures how many times an object was hovered on for more than 1 second. A hover is when the mouse pointer is placed on top of an object. The object does not need to be clicked to capture this data. The object data also displays how many times the object was hovered on. The hover-rate percentage is calculated by dividing the total number of hovers that are recorded for the object by the total number of hovers for all objects on the page. **Note:** The default time value to register a hover is one second. You can change this value in the CX UI Capture SDK. See the *IBM Tealeaf CX UI Capture Quick Start Guide* for more information.
`Hover-to-click`	Hover-to-click captures the number of times that an object was hovered on for more than 1 second and then the object was clicked. The hover-to-click percentage is calculated by dividing the total number of hover-to-click actions that are recorded for the object by the total number of hover-to-clicks for all objects on the page. **Note:** The default time value to register a hover is one second. You can change this value in the CX UI Capture SDK. See the *IBM Tealeaf CX UI Capture Quick Start Guide* for more information.

Table 3. Pushpin object data summary (continued)

Analytic	Description
`Avg hover time`	Average hover time captures the average amount of time that an object is hovered on without being clicked. The unit of time is measured in seconds. The object data also displays how many times the object was hovered on. **Note:** The default time value to register a hover is one second. You can change this value in the CX UI Capture SDK. See the *IBM Tealeaf CX UI Capture Quick Start Guide* for more information.
`Avg hover-to-click`	Average hover-to-click captures the average amount of time that an object is hovered on before it is clicked. The unit of time is measured in seconds. The object data also displays how many times the object was hovered on and then clicked.

While you are viewing the object data, you can place your mouse in the right margin of a statistic to display the report icon. Clicking the report icon opens the Report Builder where you can create a report. For more information about the Report Builder, see the *IBM Tealeaf Reporting Guide*.

Modifying the Link Analytics overlay display

In the Link Analytics overlay, a pushpin is shown next to objects that are clicked or hovered by a statistically significant percentage of visitors. The default metric that is displayed in the Link Analytics overlay is the click-rate metric. This section describes how the click-rate metric is displayed in the report. If other metrics are applied to the overlay, they function similarly.

- Pushpins are numbered to indicate the popularity ranking of the percentage of visitors who clicked the object. For example, by default, the number 1 pushpin is the most popular object clicked on the page.
- Highlighted pushpins represent the five most popular objects on the web page.
- Located next to the pushpin is the click-rate percentage, which is the percentage of users who clicked the object.
- By default, the top 20 elements are displayed.
- When screen objects appear in the same location, pushpins are cascaded to prevent one pushpin from covering another. The overlay draws a line between the pushpin and the location of the web page where the clicks occurred.

  Note: If you drag a pushpin on top of another pushpin, the pushpin that you just moved hides the pushpin below it. You can click and drag any push pin to a new location on the screen. An indicator line ties the pushpin to the object
- In the top toolbar, you can apply dimensional filters to the displayed overlay. See Chapter 4, “cxOverstat interface,” on page 41.
- In the top toolbar, you can change the range of dates that are displayed in the overlay data. See Chapter 4, “cxOverstat interface,” on page 41.

When the Link Analytics overlay is displayed, you can customize the report by:

- Applying a new range of dates for the report (see “Changing the date range” on page 42)
- Toggling which metrics are displayed (see “Applying metrics to a cxOverstat report” on page 42)
- Customize the frequency type and the number of elements that are displayed for each metric (see “Customizing Link Analytics elements” on page 44)

- Filtering the data by dimension types and dimension values (see "Filtering dimension values within an overlay" on page 44)

Using the Comparison Analytics overlay

You can compare metrics or dimensions side-by-side, as well as segment data, by using the Comparison Analytics overlay.

When you replay a cxOverstat-enabled web page, you can use Comparison Analytics to customize a report that can help you to visually identify customer interaction with the web page.

You can use this information to help identify the user focus on a page. This information can be used to discover design flaws with a web page. The report can be exported to a PDF file or to a Microsoft Excel file that can then be imported into a presentation or into another reporting tool.

The following metrics are recorded into dimensions that are related to cxOverstat and are visually represented through the overlay:

Table 4. cxOverstat metrics

Metric	Description
`Clicks`	Displays all of the clicks for a page.
`Hovers`	Captures each hover point on a page. A hover is when the mouse pointer is placed on top of an object for more than 1 second. The object does not need to be clicked to capture this data. **Note:** The default time value to register a hover is one second. You can change this value in the CX UI Capture SDK. See the *IBM Tealeaf CX UI Capture Quick Start Guide* for more information.
`Hover-to-click`	Hover-to-click captures each time that an object was hovered on for more than 1 second and then the object was clicked. **Note:** The default time value to register a hover is one second. You can change this value in the CX UI Capture SDK. See the *IBM Tealeaf CX UI Capture Quick Start Guide* for more information.
`Avg hover time`	Average hover time captures the average amount of time that an object is hovered on without being clicked. The unit of time is measured in seconds. The object data also displays how many times the object was hovered on. **Note:** The default time value to register a hover is one second. You can change this value in the CX UI Capture SDK. See the *IBM Tealeaf CX UI Capture Quick Start Guide* for more information.
`Avg hover-to-click time`	Average hover-to-click captures the average amount of time that an object is hovered on before it is clicked. The unit of time is measured in seconds. The object data also displays how many times the object was hovered on and then clicked.

Viewing the Comparison Analytics overlay

The Comparison Analytics user interface gives you the ability to customize a report that can be used to isolate user interactions with a web page.

To access Comparison Analytics:

1. Open a session in BBR or a snapshot in the Gallery.
2. Select a page where IBM Tealeaf cxOverstat data is collected.
3. Click **Overlays**.

4. Select **Comparison Analytics**.

When the Comparison Analytics overlay is displayed, you can customize the report by:

- Applying a new range of dates for the report (see "Changing the date range" on page 42)
- Toggling which metrics are displayed (see "Applying metrics to a cxOverstat report" on page 42)
- Applying thresholds to the available metrics (see "Changing metrics thresholds" on page 42)
- Segmenting the data by dimension types and dimension values (see "Segmenting dimension values within an overlay" on page 29)
- Filtering the data by dimension types and dimension values (see "Filtering dimension values within an overlay" on page 44)

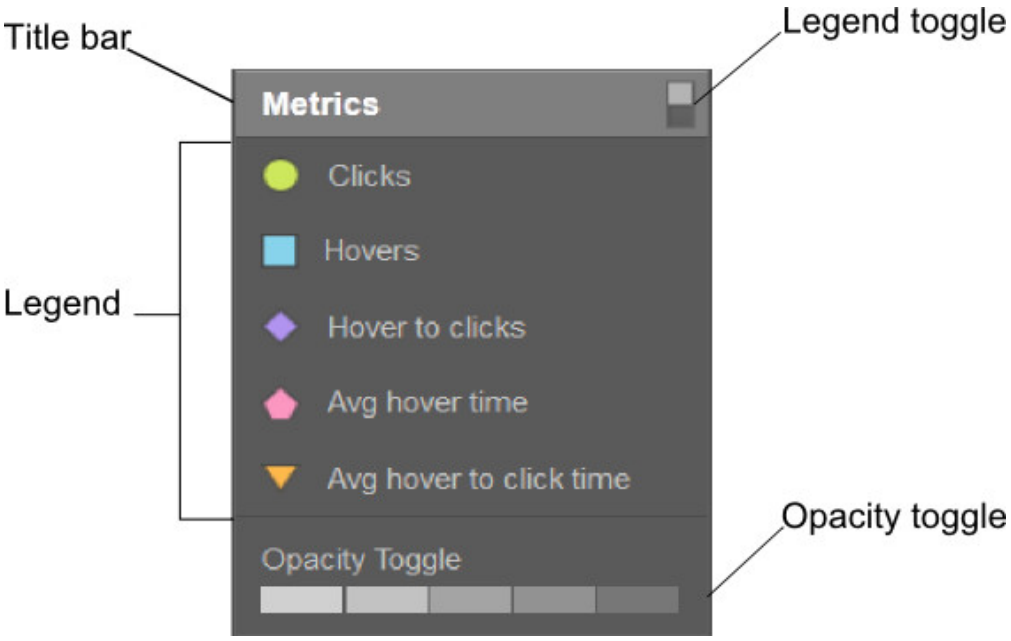
Modifying the Comparison Analytics overlay display

You can use a legend to adjust how the metrics are displayed when you view a **Comparison Analytics** overlay.

The **Comparison Analytics** overlay provides a legend to help you identify the metrics that are represented in a report. You can use the legend to conduct the following tasks:

- Identify which metrics are displayed in the report
- Make a metric visible or invisible in the report
- Filter the report by opacity

The following image shows an example of the legend:



In this example, clicks, hovers, hover-to-clicks, average hover time, and average hover-to-click time are enabled for the report. For information on how to apply a metric to a cxOverstat report, see "Applying metrics to a cxOverstat report" on page 42.

There are four major parts of the Comparison Analytics legend:

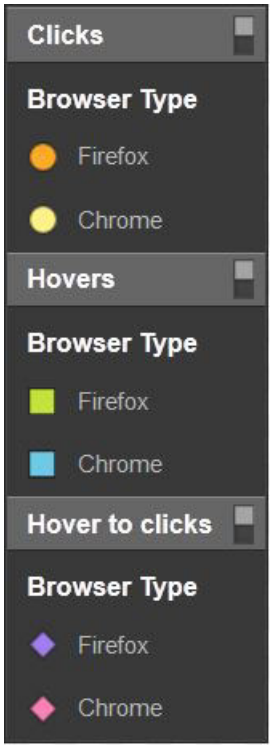
Table 5. Comparison Analytics legend description.

Function	Description
Title bar	Use the title bar to drag the legend to another location on the screen. To move the legend to another location on the screen: 1. Place your mouse over the title bar. 2. Press and hold the primary mouse button; then, use your mouse to drag the window to a new location on the screen. 3. Release the primary mouse button after the legend is relocated to its new position on the screen.
Legend	Identifies each metric that is applied to the report and its associated symbol. The following symbols are used to identify the available metrics: • **Clicks**: Circle • **Hovers**: Square • **Hover-to-clicks**: Diamond • **Average hover time**: Pentagon • **Average hover-to-click time**: Triangle You can hide an individual metric from the report by clicking the metric that you want to hide. When a metric is hidden in the report, the legend is updated by: • Removing color from the symbol next to the metric • The text for the metric is colored dark gray Click the metric again to make it visible in the report.
Legend toggle	Hides or displays all of the metrics that are listed in the legend. This feature can be used to hide all of the metric-related symbols and make the page easier to view. Click the legend toggle to switch between displaying all of the selected metrics in the report or hiding all of the selected metrics from the report.

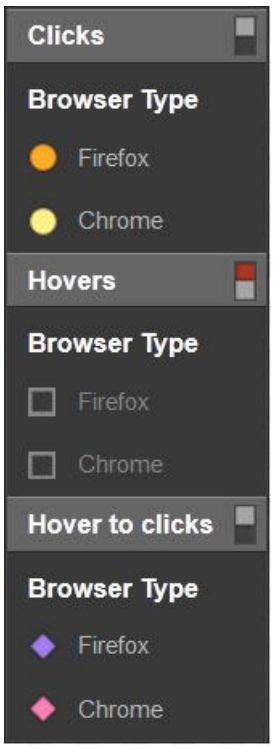
Table 5. Comparison Analytics legend description. (continued)

Function	Description
Opacity toggle	Displays only the metrics that match the selected opacity levels. Toggling the opacity level gives you the ability to generate a more meaningful report by hiding values with low frequency or impact. The frequency of each metric is represented by the color opacity of each metric's symbol in the report. Frequency is divided into 5 levels of opacity: When you view the opacity toggle from left to right, the first clickable selection represents a frequency of 100% through 80%. Each additional selection represents a 20% decrease in frequency. The last clickable selection represents a frequency of 20% through 1%.

If new metrics or segments are applied to the **Comparison Analytics** overlay, the legend is automatically updated with the changes. The following example displays the legend after you add the segmentation for Firefox and Chrome browser-types to the report and remove the `average hover time` and `average hover-to-click time` metrics.



When segments are applied to the overlay, a legend toggle becomes available for each enabled metric. The toggle icon is displayed next to each metric. Clicking the toggle icon for a metric hides the elements that are associated with the metric from the report. In this example, the **Legend toggle** next to `Hovers` is clicked which hides all of the hover elements from the report. The legend toggle is colored red when it is toggled to off.



Segmenting dimension values within an overlay

You can segment dimension values within a cxOverstat Comparison Analytics overlay.

You can add dimension-value segments to a Comparison Analytics overlay to isolate particular dimension values within the report.

Note: A combination of up to 12 selected metrics, dimensions, or dimension values can be displayed in a Comparison Analytics overlay.

For example, you might want to see the click and hover metrics for each browser that was used to view the web page. In this scenario, you can apply dimension value segments to the overlay. You can select up to six browser types for the dimension values. This combination of selected metrics and dimension values would equal the maximum of 12 items that can be displayed in the overlay.

To segment a dimension value within a cxOverstat Comparison Analytics overlay:

1. From the toolbar at the top of the overlay screen, click **Filter or Segment**.
2. Select the dimension type that you want to segment in the report.

   Only the dimensions that are associated with the events that are capturing data for the overlay are available for selection. See "Eventing for cxOverstat" in the *IBM Tealeaf Event Manager Manual*.

   Note: You can enter a dimension type in the search field. As you type, the field provides a list of matching dimension types. You can select a dimension name from the updated list.
3. Select the dimension values that you want to filter.

   The list of dimensions values that are available for the dimension type are listed.

Note: You can enter a dimension value in the search field. As you type, the field provides a list of matching dimension values that are associated with the selected dimension type. You can select dimension values from the updated list.

4. Click **Segment** to submit your changes and update the overlay with the selected filters. If you do not want to apply the changes, click **Cancel**.

Removing dimension-type segments from an overlay:

You can remove a specific segmented dimension-value or an entire dimension type from a report.

To remove a filtered dimension type:

1. From the toolbar at the top of the overlay screen, click **Filter**.

   Note: If you are viewing a Comparison Analytics overlay, click **Filter or Segment**.
2. Place your mouse over the dimension type that you want to remove from your filter settings.
3. Click the red **X** next to the dimension type to remove it from your filter settings.
4. When all unwanted filter settings are removed, click **Apply** to submit your changes and update the overlay.

To remove a segmented dimension value, see "Removing dimension-value filters from an overlay" on page 45.

Removing dimension-value segments from an overlay:

You can remove a dimension type or a specific dimension value from a segmented Comparison Analytics overlay.

To remove a filtered dimension value:

1. If you are viewing a Comparison Analytics overlay, click **Filter or Segment**.
2. Click the dimension type that contains the dimension value that is to be removed from your filter settings. A segmentation icon is displayed next to any dimension type that contains a segmented dimension value.
3. From the list of dimension values, clear any dimension values that you want removed from the segmentation settings.
4. When all unwanted filter settings are removed, click **Apply** to submit your changes and update the overlay.

To remove a segmented dimension type, see "Removing a dimension-type filter from an overlay" on page 45.

Using the Heat Map overlay

cxOverstat provides heat map overlays that can be used to identify the regions of a web page where visitors interact with the page.

cxOverstat heat maps can be used to view the areas of a page that visitors hover on or click. By tracking this user behavior, you can see where users tend to focus on the page and identify flaws in the design of the page. For example, if visitors are clicking items that have no links, it indicates some expectation that is not being

met by the site. Similarly, visitors that fail to click the appropriate links provide an indication that the link is not properly designed or positioned on the page.

Using Heat Maps

cxOverstat provides heat map overlays that can be used to identify the regions of a web page where visitors interact with the page.

To view the Heat Map overlay:

1. Open a session in BBR or a snapshot in the Gallery.
2. Select a page where IBM Tealeaf cxOverstat data is collected.
3. Click **Overlays**.
4. Select **Heat Map**.

The "heat" associated with each spot on the map indicates the frequency of clicks that are made in that area relative to the rest of the page. An area that is clicked can be anything; it does not have to be an active link. A click can be registered by any HTML-based object that is rendered by the DOM.

Click spots are associated with individual objects on the screen, which helps pinpointing the following elements:

- You can see exactly where people selected the object. For example, if a link is a long sentence, you can see whether they clicked at the beginning, middle, or end of the sentence.
- If the object moves because of scrolling the page or resizing of the browser, the heat spots are repositioned with the object.
- In the top toolbar, you can apply dimensional filters to the displayed overlay. See Chapter 4, “cxOverstat interface,” on page 41.
  - You can also focus on specific areas of the page and then generate a report on the data. See “Selection area” on page 34.
- In the top bar, you can also change the range of dates that are displayed in the overlay data. See Chapter 4, “cxOverstat interface,” on page 41.

Heat Map legend overview

The following metrics are recorded into dimensions that are related to cxOverstat and are visually represented through the overlay:

Table 6. cxOverstat metrics

Metric	Description
`Clicks`	A click heat map provides a visual display of the areas where visitors clicked the page, whether there is any link to click or not.
`Hovers`	Captures each hover point on a page. A hover is when the mouse pointer is placed on top of an object for more than 1 second. The object does not need to be clicked to capture data. **Note:** The default time value to register a hover is 1 second. You can change this value in the CX UI Capture SDK. See the *IBM Tealeaf CX UI Capture j2 Guide* for more information.
`Hover-to-click`	Hover-to-click captures each time that an object was hovered on for more than 1 second and then the object was clicked. **Note:** The default time value to register a hover is 1 second. You can change this value in the CX UI Capture SDK. See the *IBM Tealeaf CX UI Capture j2 Guide* for more information.

Table 6. cxOverstat metrics (continued)

Metric	Description
`Avg hover time`	Average hover time captures the average amount of time that an object is hovered on without being clicked. The unit of time is measured in seconds. The object data also displays how many times the object was hovered on. **Note:** The default time value to register a hover is 1 second. You can change this value in the CX UI Capture SDK. See the *IBM Tealeaf CX UI Capture j2 Guide* for more information.
`Avg hover-to-click time`	Average hover-to-click captures the average amount of time that an object is hovered on before it is clicked. The unit of time is measured in seconds. The object data also displays how many times the object was hovered on and then clicked.

Intensity

The relative frequency of clicks is indicated by a gradient color, from gray, indicating a low number of clicks, to red indicating a high number of clicks.

Below is the color gradient spectrum:

Figure 3. Heat map color gradient

In the table below, you can see the color coding for heat map spots.

- The percentages below indicate the percent of visitors during the time period who viewed a page.

Note: The intensity is relative to the page. Intensities between pages are not relative. For example, a red area on Page A does not mean that the area received the same number of clicks as a red area on Page B.

Color **Percentage clicked**

Gray 0 - 2.5%

Blue 2.5 - 12.5%

Teal 12.5 - 30%

Green 30 - 50%

Yellow
50 - 70%

Orange
70 - 90%

Red 90 - 100%

If there is no color in an area, it means that no visitors or a small percentage of visitors clicked there.

Analyzing Heat Maps

In the Heat Map, spots of greater intensity are the locations where more visitors clicked. How do you use this information?

In the following example, the tealeaf.com web application is designed to prompt visitors to make inquiries about Tealeaf products and to contact Tealeaf for more information. A heat map is generated to analyze visitor behaviors on the home page (http://www.tealeaf.com).

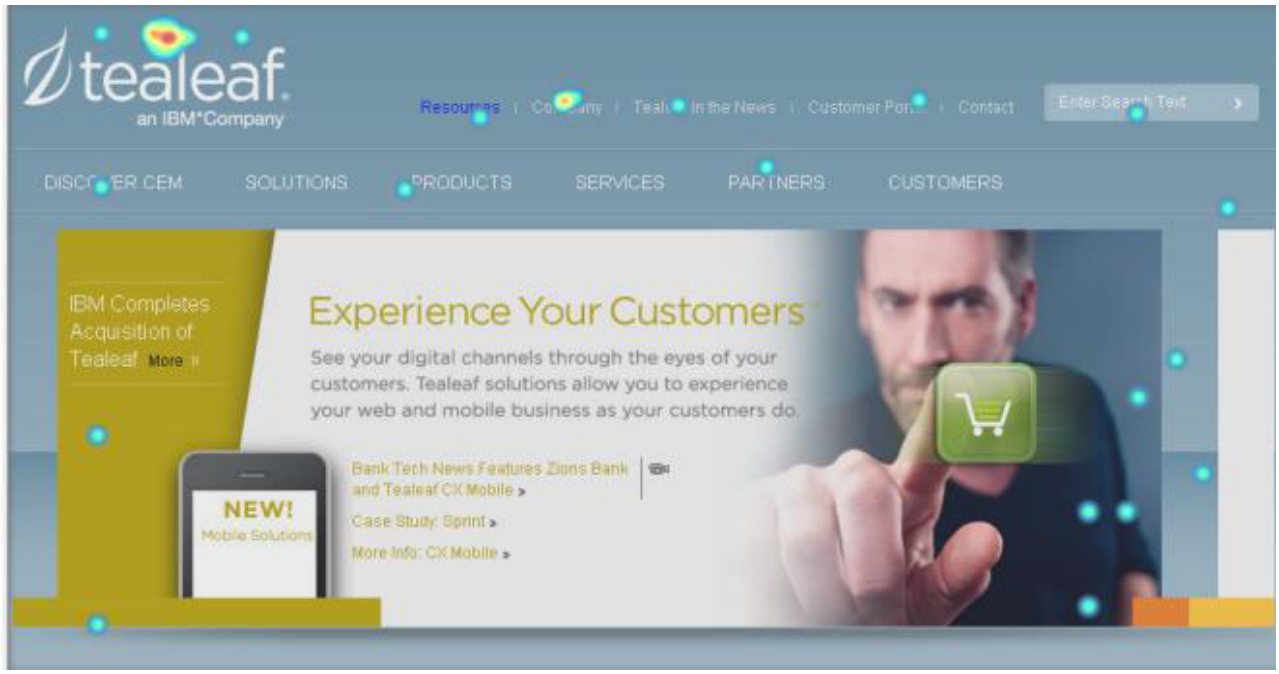

tealeaf
an IBM*Company
Resources
Contact
SOLUTIONS
PRODUCTS
SERVICES
PARTNERS
CUSTOMERS
IBM Completes Acquisition of Tealeaf More »
Experience Your Customers
See your digital channels through the eyes of your customers. Tealeaf solutions allow you to experience your web and mobile business as your customers do.
NEW!
Mobile Solutions
Bank Tech News Features Zions Bank and Tealeaf CX Mobile »
Case Study: Sprint »
More Info: CX Mobile »

Figure 4. Heat Map Example

Observations

- The primary content area is the Discover CEM toolbar and the large image in the middle of the page.
- Most clicks are in the top navigation bar, which is considered a secondary option.
- Further down the page, the number and intensity of the heat maps decrease.

Analysis:
The above observations can be caused by scanning patterns, in which the typical user scans the web page in an F-pattern, starting from the banner. However, since the top navigation ("Discovery CEM") bar is so low on the page, users can confuse the navigation bar with the primary content below it. The relative positioning of the navigation can detract from the primary message of the page.

A simple solution might be to move the Discover CEM toolbar higher on the page, even above the top navigation bar, where these options are overlooked. Since one of the primary objectives of the web application is to generate interest from users, the Contact link must be integrated into the main panel area.

Selection area

You can use the Selection tools to drill into usability data. When the Selection tools are used to surround a specific area of color, you can open a menu of options for drilling down into the underlying data and the sessions of visitors who clicked the area.

Figure 5. Heat Map Selection Tools and Selection Area

To use the rectangle selection tool, click **Sub-Select** from the toolbar. The selection tool is displayed in the overlay. Located next to the tool is listed the number of heat map data points that are within the selection area.

- To change the size of the selection tool, click and drag one or more of the perimeter dots to a new location on the screen. The selection shape is changed.
- To move the selection tool, click the middle of the selection area and drag it to a new location. The selection shape is moved.

As you change or move the selection area, the number of data points is automatically updated based on the new selection area.

To view a report that contains the selected data points and the applied dimension filters, click **View report from this data**. The report is opened in the Report Builder, with the events, dimensions, and date range of the overlay that is applied in the report.

To close the selection area, click **Close selector**.

When to run Heat Maps

For best results, you can generate heat maps around specific intervals of interest.

Examples of when to run Heat Maps:

- During high traffic periods
- With feature rollouts or marketing initiatives
- Over a weekend
- At specific times during the day

By analyzing during a targeted period, you can gain insight into visitor behavior at different time intervals and target content for specific groups.

Note: Before you begin using Heat Maps, it is necessary to allow sufficient time to elapse to gather a reasonable volume of data. The minimum number of points to be statistically accurate is 10,000 clicks. For frequently visited pages, this minimum is quickly met. For less frequently visited pages, you must verify that you have sufficient points by using the Selection Tool to count the current points.

Using the Attention Map overlay

An attention map provides visual information about the areas of your web page that are framed in the browser window.

Using a color-banding mechanism, an attention map identifies the areas that are most consistently displayed in the visitor's browser window. Typically, this area is the top part of a page, and IBM Tealeaf cxOverstat marks these areas with a green horizontal color banding.

- IBM Tealeaf cxOverstat monitors attention in the vertical access only; all points across the same horizontal band are marked in the same color. Horizontal attention is not currently supported.
- Areas that are less consistently displayed in the browser window are marked with yellow, orange, and red color tones.

Note: For a selected page, the Attention Map overlay contains no data until the page is seen by at least one visitor.

Viewing the Attention Map overlay

The color scheme that is used to display attention uses the following mechanism:

Color	Description
green	Area of most attention.
yellow	Area of frequent attention.

red Area of some attention.

blue Area of limited attention.

Note: Attention intensities are relative to the page. You cannot compare color gradations across pages of your web application.

In the following example, the vertical bar is scrolled partially down the entire page. The color clearly shifts from yellow to red across a single line, which indicates where the bottom of the screen is displayed for most visitors. This line, which is known as the "fold," is a sharp delineator between content that is likely to be viewed and processed by visitors and content that is not.

IBM Tealeaf cxOverstat monitors the areas that are framed by your visitors and transmits that coordinate information to IBM Tealeaf cxOverstat on a periodic basis.

Each page is divided into 10-pixel increments. For each segment, IBM Tealeaf cxOverstat tracks the amount of time that it is viewed. This total time is then compared to the average for the page. Based on the computed result, a color-appropriate banding is displayed.

When IBM Tealeaf cxOverstat attention data is transmitted to an IBM Tealeaf cxOverstat user's browser, all data is averaged and normalized to the destination browser's dimensions. Attention data that is displayed on one browser looks like attention data that is displayed on another one being used at a different screen resolution, for example.

- Any data that exists beyond the end of the page as it is rendered in BBR is not displayed.

Viewing Attention Map reports

By using the Attention Map overlay, you can open a report that contains the events and optional dimensions that track Attention Map data for the specified date range.

Click **View Report** in the toolbar to open the report in the Tealeaf Report Builder. The report contains all of the Tealeaf events that track attention information with any dimensions you specify in the overlay that is also specified in the report.

Note: When you open an Attention Map report in Report Builder:

- The date range of the overlay is applied to the report.

- The report can be modified and saved as needed in the Tealeaf Report Builder. See "Tealeaf Report Builder" in the *IBM Tealeaf Reporting Guide*.

Using the Accessibility overlay

The Accessibility overlay evaluates the type of website issues that might affect users with visual, auditory or physical impairment.

The Accessibility overlay uses pins to identify page elements that violate WCAG 2.0 standards, categorizes these issues by severity, and provides additional information on the disabilities impacted. It specifically targets issues that might arise for people with disabilities such as vision impairment, who use screen readers and other tools to access web pages.

- In the top toolbar, you can change the severity that is displayed on the overlay.

Viewing Accessibility metrics

Accessibility issues appear as pins: signifying a violation, signifying a potential violation and signifying that it is recommended to review the issue. Click the pin to expand, and view the issue in greater detail. The legend can be viewed in the Severity box, which shows each issue rating next to it's corresponding icon. The violation, potential violation, or recommendation that appears most often will be at the top of the queue. You can choose which issues will display on top of the snapshot as icons, by selecting the check box next to the issue in the Severity dropdown menu.

To access the help section, select the pin that you are working with and click **Show Details**. This brings you to an external page that contains additional information about the issue you selected.

Accessibility Impact
Blind, Low vision, Color blind, Deaf, Cognative, Motor, Epilepsy
Issue
Elements having an aria-active descendant property must also contain a tabindex attribute with a value greater than or equal to zero.
Show Details

Relocating Pushpins

Depending on the number or location of pushpins, it can be difficult to analyze data. You can click and drag any push pin to a new location on the screen. An indicator line ties the pushpin to the object.

Using the Contrast Analytics overlay

The Contrast Analytics overlay evaluates difficulties users might encounter when they view items on a website due to a lack of contrast between the foreground text and the background color. Contrast Analytics uses pins to signify violations of WCAG2.0 standards on cxOverstat-enabled web pages, and determines where the contrast issue is located.

Viewing the Contrast Analytics overlay

You can view and analyze data using the Contrast Analytics overlay.

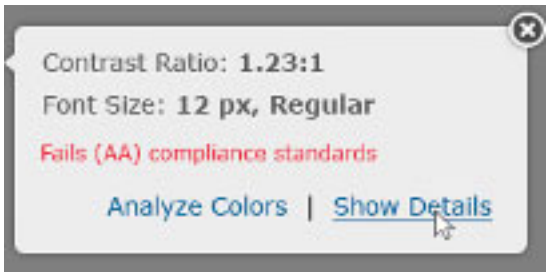
To access Contrast Analytics:

1. Open a session in BBR or a snapshot in the Gallery.
2. Select a page where cxOverstat data is collected.
3. Click **Overlays**.
4. Select **Color Contrast**.

Modifying the Contrast Analytics overlay display

Accessibility issues appear as pins signifying a violation. Click the pin to expand, and view the issue in greater detail.

To access the help section, select the pin that you are working with and click **Show Details**. This brings you to an external page that contains additional information about the issue you selected. To analyze the color contrast issues in depth, click **Analyze Colors**. This takes you to the Color Contrast Analyser.

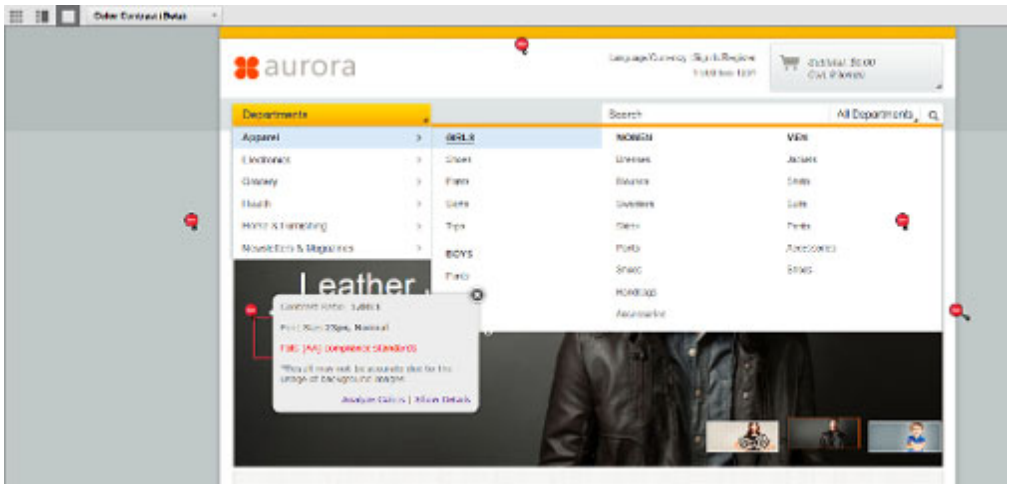


Relocating Pushpins

Depending on the number or location of pushpins, it can be difficult to analyze data. You can click and drag any push pin to a new location on the screen. An indicator line ties the pushpin to the object.

Viewing Contrast Analytics metrics

A contrast ratio of 4.5 or greater is necessary to avoid being pinpointed as a violation by the Contrast Analytics overlay. The overlay indicates where there are potential problems with the contrast ratio.



Using the Color Contrast Analyser, users can test which foreground and background color combinations work on their website. Move the cursor within the Color Contrast Analyser tool to preview different options for the foreground and background colors on the selected violation. Your adjustments will appear on the snapshot of the selected page, and the Pass/Fail indicator will change based on the colors you test. Click the **Reset Preview** button to remove previewed changes.

Users also have the option of using the Autocorrect Changes button, which automatically corrects the violation, and changes it to a color combination that passes.

IBM Tealeaf Color Contrast Analyser
Current Font
12.0 PX regular
Contrast Ratio
4.40:1
(AA) Normal Text
Fail
(AA) Large Text
Pass
Hide Details
Text with a foreground and background color contrast ratio of less than 4.5:1 can be difficult for users to read, especially if the user is visually impaired.
For WCAG 2.0 AA compliance, most text requires a contrast ratio of at least 4.5:1. This requirement is relaxed to 3:1 if the text is large scale or if the text is decorative, or used in a logo.
Guideline Resources: WCAG 2.0 checkpoint 1.4.3, WCAG 2.0 checkpoint 1.4.6
Foreground Color
R 117 H 102 °
G 121 S 4 %
Background Color
R 255 H 0 °
G 255 S 0 %

Chapter 4. cxOverstat interface

Usability analytics from your website such as heat map, click map, link analytics, form field analytics and comparison analytics can be accessed as overlays through Browser Based Replay and Snapshot.

Through Browser Based Replay and Snapshot, you can access features that are helpful in analyzing usability of any monitored page. Detailed usability analytics such as heat map, click map, link analytics, form field analytics, and comparison analytics features are available as overlays. They collect usability information that is gathered from your web application and store it for seamless retrieval in Snapshot and BBR.

Note: IBM Tealeaf cxOverstat is a separately licensable component from IBM Tealeaf CX. please contact your IBM Tealeaf representative.

Before you use cxOverstat, review the prerequisites and limitations for cxOverstat. For more information, see "Prerequisites" on page 7 and "How cxOverstat works with other Tealeaf products" on page 2.

When you load a session in BBR and then select an IBM Tealeaf cxOverstat overlay, BBR displays an overlay on top of the current page. This overlay contains usability information that is gathered from all visitor sessions that are captured by Tealeaf over a number of days before the current date.

cxOverstat toolbars

The cxOverstat overlays provide toolbars that can be used to modify the information that is displayed in the overlay.

The main toolbar at the top of the cxOverstat overlay screen adapts to the type of overlay that you are viewing. Depending on which overlay you are viewing, some or all of the following actions are available:

- Change the date range for a report

  For more information, see "Changing the date range" on page 42.
- Change the metrics that are displayed

  For more information, see "Applying metrics to a cxOverstat report" on page 42.
- Filter and Segment data in the overlay

  For more information, see "Dimension filters and segmentation overview" on page 48.
- Change the threshold for the selected metrics

  For more information, see "Changing metrics thresholds" on page 42.
- Subselect a region of focus on a page

  For more information, see "Using Sub-select to define a region of focus" on page 47.
- Export the data from the overlay

  For more information, see "Exporting data from cxOverstat" on page 47.

In addition to the toolbar, the cxOverstat overlay gives you the ability to:

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- Zoom in on a page
  For more information, see “Zoom toolbar and the Page Navigator” on page 49.
- Drill down into reports with Report Builder
  For more information, see “Using drill-down links” on page 48.

Changing the date range

You can change the date range that is applied to a cxOverstat report.

By default, each overlay displays usability data from the date when the session occurred and the preceding two weeks. You can specify a new date range for the report by clicking the current range of dates that is displayed in the toolbar at the top of the screen.

Figure 6. Date range selector

To change the date range:

1. Click the current range of dates in the toolbar.
2. Select a new date range. You can select a new range from the **Quick Select** field or specify a date range by clicking the **Start Date** and **End Date** fields. You can enter dates into the **Start Date** and **End Date** fields or select dates from a calendar.
3. Click **Apply** to update the report with the new date range.

Applying metrics to a cxOverstat report

When you view Link Analytics, Comparison Analytics, and Heat Maps overlays, you can select which metrics are displayed in the report.

When you view the Link Analytics or Comparison Analytics overlays, you can select any combination of clicks, hovers, hover-to-clicks, average hover time, or average hover-to-click time. When you view the Heat Maps overlay, you can apply only one metric at a time.

To specify which metrics are displayed in the report:

1. Click **Metrics** in the toolbar at the top of the screen.
2. Select each metric that you want to display in the report.
3. Click **Apply** to apply your selections to the report.

Changing metrics thresholds

When you view a Heat Map or Comparison Analytics report, you can change the threshold for the metrics that are displayed in the report.

Changing the thresholds of the metrics that are displayed in a report can make the report easier to read and interpret. For example, increasing the lowest threshold setting eliminates some of the lower values from the report. You can specify a threshold for each enabled metric that is displayed in the report. For more information about enabling or disabling which metrics are displayed in the report, see “Applying metrics to a cxOverstat report.”

The following image displays the default **Threshold** menu. The image displays all of the available cxOverstat metrics that can be enabled in the Comparison

Analytics report.

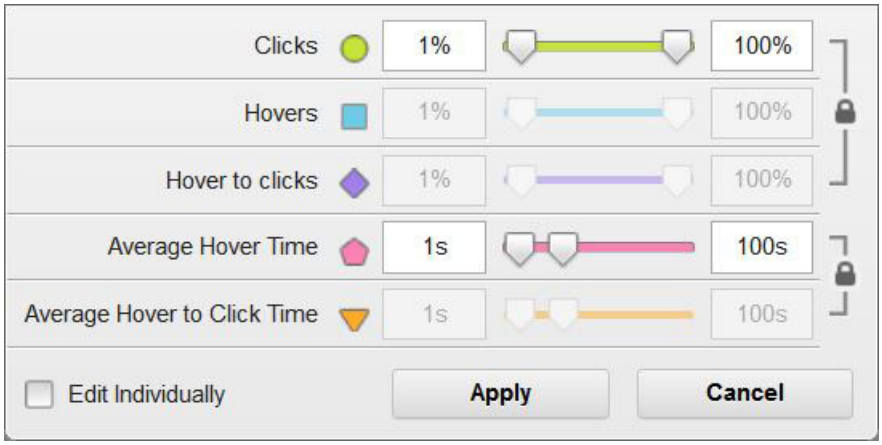

Figure 7. Threshold menu

By default, threshold settings are grouped and can be edited as a group. Threshold settings for clicks, hovers, and hover-to-click metrics are grouped and use percentages as the beginning and ending threshold values. Threshold settings for average-hover-time and average-hover-to-click-time metrics are grouped and use time values (in seconds) as the beginning and ending threshold values. A lock icon is displayed next each group of metrics. The icon displays a locked status when the threshold settings for the metrics within the group can be edited as a group. The icon displays an unlocked status when you can edit the threshold for each metric individually.

You can change the threshold for all of the metrics within a group by changing the threshold of the first metric in that group. The new threshold settings are immediately applied to the rest of the metrics in that group. To change the threshold of an individual metric, you can click the lock icon next to the group that contains the metric or select **Edit Individually**. If you no longer want to change the thresholds for individual metric, you can clear **Edit Individually** or click the lock icon next to the group.

To change the threshold of a metric:

1. Click **Threshold** from the toolbar at the top of the screen.
2. Locate the threshold for the metric that you want to change.

   If you want to change the threshold of a metric individually, select **Edit Individually**. To change the threshold for the group, make sure that **Edit Individually** is not selected and locate the threshold settings for the first metric that is listed in the group.
3. Use the threshold slider to adjust the beginning and the end values for the threshold.

   Note: You can also enter a numeric value for the beginning and end threshold values.

   By increasing the beginning value of the threshold, you can eliminate lower values of the metric from displaying in the report. By decreasing the end value of the threshold, you can eliminate higher values of the metric from displaying in the report.
4. Click **Apply** to update the overlay with your new threshold settings.

Customizing Link Analytics elements

When you view a Link Analytics report, you can customize the frequency of the metrics that are displayed in the report.

Changing the frequency of the metrics that are displayed in a report can help you identify how users interact with a web page. You can adjust each metric to display the most occurrences, the least occurrences, and also specify the maximum number of elements that are displayed in the report.

By default, metric settings are grouped and can be edited as a group. The settings for clicks, hovers, and hover-to-click metrics are grouped and the settings for average hover time and average hover-to-click time metrics belong to a second group. A lock icon is displayed next each group of metrics. The icon displays a locked status when the settings for the metrics within the group can be edited as a group. The icon displays an unlocked status when you can edit the settings for each metric individually.

To customize the elements that are displayed in the Link Analytics report:

1. Click **Customize** from the toolbar at the top of the screen.
2. Locate the metric that you want to change.

   If you want to edit the settings for this metric individually, select **Edit Individually**. To change the threshold for the group, make sure that **Edit Individually** is not selected and locate the threshold settings for the first metric that is listed in the group.
3. Click the **Top/Bottom** toggle to configure the type of occurrences that you want displayed in the report. If you want to display the most frequent occurrences of the metric, select **Top**. If you want to display the least frequent occurrences of the metric, select **Bottom**.
4. Enter the number of elements for the metric that you want to display in the report. The default setting is to display 20 elements on the screen for each listed metric.
5. Click **Apply** to update the overlay with your new settings.

Filtering dimension values within an overlay

You can filter dimension values within a cxOverstat overlay. You can apply dimension filters to the data that is displayed in a cxOverstat overlay.

To filter a dimension value within a cxOverstat overlay:

1. From the toolbar at the top of the overlay screen, click **Filter**. If you are viewing a Comparison Analytics overlay, click **Filter or Segment**.
2. Select the dimension type that you want to filter.

   Only the dimensions that are associated with the events that are capturing data for the overlay are available for selection. See "Eventing for cxOverstat" in the *IBM Tealeaf Event Manager Manual*.

   Note: You can enter a dimension type in the search field. As you type, the field provides a list of matching dimension types. You can select a dimension name from the updated list.
3. Select the dimension values that you want to filter.

   The list of dimensions values that are available for the dimension type are listed.

Note: You can enter a dimension value in the search field. As you type, the field provides a list of matching dimension values that are associated with the selected dimension type. You can select dimension values from the updated list.

4. Click **Apply** to submit your changes and update the overlay with the selected filters. If you do not want to apply the changes, you can click **Cancel**.

Removing a dimension-type filter from an overlay

You can remove a specific filtered dimension-value or an entire dimension type from a report.

To remove a filtered dimension type:

1. From the toolbar at the top of the overlay screen, click **Filter**.

   Note: If you are viewing a Comparison Analytics overlay, click **Filter or Segment**.
2. Place your mouse over the dimension type that you want to remove from your filter settings.
3. Click the red **X** next to the dimension type to remove it from your filter settings.
4. After you remove any unwanted filter settings, click **Apply** to submit your changes and update the overlay.

   Note: If you are viewing a Comparison Analytics overlay, click **Filter** to submit your changes and update the overlay.

Removing dimension-value filters from an overlay

You can remove a filtered dimension type or a specific dimension-value or an entire dimension type from a report.

To remove a filtered dimension value:

1. From the toolbar at the top of the overlay screen, click **Filter**.

   Note: If you are viewing a Comparison Analytics overlay, click **Filter or Segment**.
2. Click the dimension type that contains the dimension value that is to be removed from your filter settings. A filter icon is displayed next to any dimension type that contains a filtered dimension value.
3. From the list of dimension values, clear any dimension values that you want removed from the filter settings.
4. After you remove any unwanted filter settings, click **Apply** to submit your changes and update the overlay.

Segmenting dimension values within an overlay

You can segment dimension values within a cxOverstat Comparison Analytics overlay.

You can add dimension-value segments to a Comparison Analytics overlay to isolate particular dimension values within the report.

Note: A combination of up to 12 selected metrics, dimensions, or dimension values can be displayed in a Comparison Analytics overlay.

For example, you might want to see the click and hover metrics for each browser that was used to view the web page. In this scenario, you can apply dimension value segments to the overlay. You can select up to six browser types for the dimension values. This combination of selected metrics and dimension values would equal the maximum of 12 items that can be displayed in the overlay.

To segment a dimension value within a cxOverstat Comparison Analytics overlay:

1. From the toolbar at the top of the overlay screen, click **Filter or Segment**.
2. Select the dimension type that you want to segment in the report.

   Only the dimensions that are associated with the events that are capturing data for the overlay are available for selection. See "Eventing for cxOverstat" in the *IBM Tealeaf Event Manager Manual*.

   Note: You can enter a dimension type in the search field. As you type, the field provides a list of matching dimension types. You can select a dimension name from the updated list.
3. Select the dimension values that you want to filter.

   The list of dimensions values that are available for the dimension type are listed.

   Note: You can enter a dimension value in the search field. As you type, the field provides a list of matching dimension values that are associated with the selected dimension type. You can select dimension values from the updated list.
4. Click **Segment** to submit your changes and update the overlay with the selected filters. If you do not want to apply the changes, click **Cancel**.

Removing dimension-type segments from an overlay

You can remove a specific segmented dimension-value or an entire dimension type from a report.

To remove a filtered dimension type:

1. From the toolbar at the top of the overlay screen, click **Filter**.

   Note: If you are viewing a Comparison Analytics overlay, click **Filter or Segment**.
2. Place your mouse over the dimension type that you want to remove from your filter settings.
3. Click the red **X** next to the dimension type to remove it from your filter settings.
4. When all unwanted filter settings are removed, click **Apply** to submit your changes and update the overlay.

To remove a segmented dimension value, see “Removing dimension-value filters from an overlay” on page 45.

Removing dimension-value segments from an overlay

You can remove a dimension type or a specific dimension value from a segmented Comparison Analytics overlay.

To remove a filtered dimension value:

1. If you are viewing a Comparison Analytics overlay, click **Filter or Segment**.

2. Click the dimension type that contains the dimension value that is to be removed from your filter settings. A segmentation icon is displayed next to any dimension type that contains a segmented dimension value.
3. From the list of dimension values, clear any dimension values that you want removed from the segmentation settings.
4. When all unwanted filter settings are removed, click **Apply** to submit your changes and update the overlay.

To remove a segmented dimension type, see "Removing a dimension-type filter from an overlay" on page 45.

Using Sub-select to define a region of focus

You can use **Sub-select** in Heat Map or Comparison Analytics reports to define a region of focus in a web page and display the cxOverstat-related events that occurred within that region.

You can click **Sub-select** from the toolbar at the top of the screen to bring focus to a specific region of the web page that you are viewing. A window is drawn on the screen to identify the focus region. The window can be resized and moved to change your focus. To resize the window, use your mouse to drag a side or corner of the window to expand or decrease the size of the window. To move the window to a new location on the page, place your mouse inside the window, then drag the region to a new location on the page.

In addition to the focus region, a menu is displayed that shows all of the metrics and segments that are enabled in the report. Each metric and segment is represented by the same icons that are used in the metrics legend (see "Modifying the Comparison Analytics overlay display" on page 26). The icon for each metric is listed with the number of times that the metric occurs within the selected region. You can hover over a metric or segment in the menu; then, click the **Report** icon ( ) that appears to further analyze the metric or segment in the IBM Tealeaf Report Builder.

To close the window, click the **Close** button ( ) that is at the upper-right corner of the menu that displays the metrics for the selected region.

Exporting data from cxOverstat

When you are using BBR to view a visitor session, you can export cxOverstat usability data into a PDF or XML file for use with another application or database.

When you are viewing a cxOverstat-enabled web page from a visitor session in BBR, you can export the cxOverstat usability data to a PDF, or to an XML file for Microsoft Excel. You can then import the data from the exported file into an application or database to generate reports, populate another database, or to share the data with another business unit.

To export cxOverstat data:

1. From the Tealeaf Portal, view a session in BBR. For more information, see the *IBM Tealeaf cxReveal User Manual*.
2. Click a page in the session that is configured to capture cxOverstat data. If the page is enabled to use cxOverstat, the page is rendered in BBR and the **Overlays** selection in the top bar is activated.

3. Click **Overlays** and select the cxOverstat overlay that you want to view.
4. Click **Export Data**; then select the data type that you want the exported data to be formatted. Your browser prompts you to open the file or to save the file. Depending on which selections you choose, you can then view the data or import the data into another application or database.

Using drill-down links

Depending on the current overlay, drill-down links are provided to open a session list that contains all applicable sessions or a pre-configured report in the Report Builder. These drill-down links are filtered by the IBM Tealeaf cxOverstat event data and any applicable dimension filters, over the configured date range.

- For more information about the IBM Tealeaf cxOverstat overlays, see “Overview: cxOverstat overlays” on page 13.
- See "Tealeaf Report Builder" in the *IBM Tealeaf Reporting Guide*.
- For more information about session lists, see "Searching Session Data" in the *IBM Tealeaf cxImpact User Manual*.
- For more information about the IBM Tealeaf cxOverstat events, see "Eventing for cxOverstat" in the *IBM Tealeaf Event Manager Manual*.

Note: When you drill down to a Report Builder, the display report is segmented by any applicable dimensions. Segmenting does not display any included values in the dimension. If you want to see the values of a dimension, click and drag the dimension from the Segment to the x-axis.

Note: After you drill down into an IBM Tealeaf cxOverstat report, none of the IBM Tealeaf cxOverstat dimensions are available for selection in the Dimension Selector. These dimensions are used in the basic definition of the report and are therefore already selected.

- For more information about these dimensions, see "Eventing for cxOverstat" in the *IBM Tealeaf Event Manager Manual*.
- For more information about selecting dimensions in the Report Builder, see "Tealeaf Report Builder" in the *IBM Tealeaf Reporting Guide*.

Note: If you are provided direct links to BBR sessions or do not have a browser window open to the Portal web application for another reason, you might have to disable the software to block pop-up ad windows in your web browser to perform drill-downs in the Portal application. For more information, see your web browser's documentation.

Dimension filters and segmentation overview

Dimension filters and segmentation can be used to customize the data that is displayed in a report.

Dimension filtering

You can filter dimensions from any cxOverstat overlay to remove an unwanted data set from the report. Filtering dimensions from a report can make the report easier to understand and analyze.

Dimension segmentation

You can segment dimensions in a cxOverstat Comparison Analytics overlay to identify specific data segments within a report. Segmenting the dimensions in a

report can provide more detail within a report to help you better analyze the customer interactions with a web page.

Zoom toolbar and the Page Navigator

For closer examination of the IBM Tealeaf cxOverstat overlay data, you can use the Zoom toolbar to change the zoom level. As needed, you can reposition the viewport over the session page to enable review of zoomed portions of the currently displayed page. Using these tools in combination, you can examine in detail any area of a IBM Tealeaf cxOverstat overlay for detailed analysis of usability activities.

The following icons are used to control the zoom and page navigation tools.

Table 7. Zoom and Page Navigator tools

Icon	Description
	Zoom icon Click the zoom icon to display the zoom slider.
	Zoom slider Use the zoom slider to progressively increase or decrease the size of the image that is displayed. You can also click the **+** and **-** icons to increase or decrease the zoom ratio. By default, the zoom ratio is set to 100 percent.
	Page Navigator icon Use the Page Navigator to scroll the displayed image to the active view port.

Changing the Zoom factor

You can zoom in and out using the Zoom toolbar.

To open the Zoom toolbar, click the zoom ( ) icon in the toolbar. The Zoom toolbar is displayed.

Figure 8. Zoom Toolbar

At the top of the Zoom toolbar, the current zoom factor is displayed. A factor of 100% indicates that there is no zoom in or zoom out applied to the page.

- To zoom in, click the Plus (+) icon.
- To zoom out, click Minus (-) icon.
- You can also use the slider bar to change the zoom factor to a specific value.
- To reset the Zoom factor to 100%, click the Reset ( ) icon at the bottom of the zoom toolbar.

Using the Page Navigator

As needed, you can use the Page Navigator at the bottom of the screen to reposition the viewport over the page. After you zoom in on a section of the page, you can use the Page Navigator to change the focus area of the page that is displayed in BBR.

- To toggle display of the Page Navigator, click the Page Navigator ( ) icon.

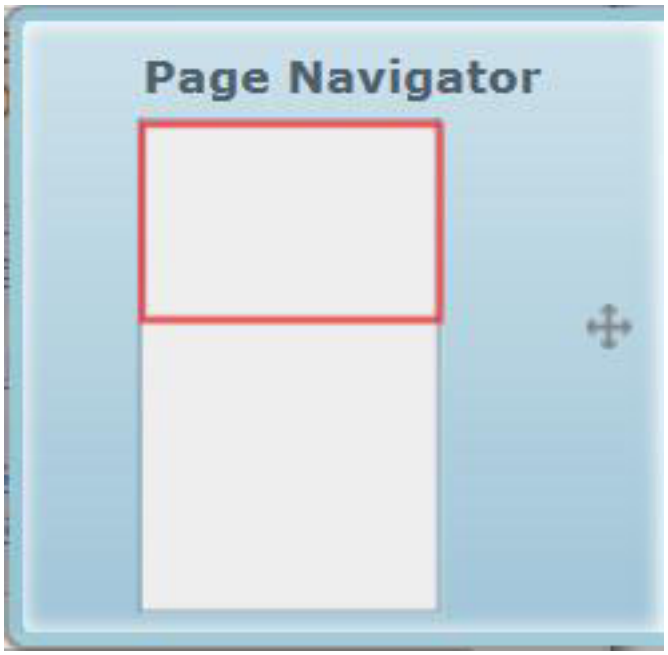

Figure 9. Page Navigator

- To reposition the viewport of the BBR display, click and drag the red rectangle inside the Page Navigator. The BBR display is automatically updated.
- To hide the Page Navigator, click the icon inside of it.

Chapter 5. Eventing for cxOverstat

IBM Tealeaf cxOverstat enables the capture of usability information from the visitor's web experience, as detected in the client and transmitted to Tealeaf. This information is anonymously collected for reporting purposes. Events can be used to specify specific conditions, such as a period of time, to record information.

Note: IBM Tealeaf cxOverstat is a separately licensable product of the IBM Tealeaf CX platform. For more information, contact your representative.

When the IBM Tealeaf cxOverstat JavaScripts are deployed on pages or ScreenViews of your web application, usability data such as X-Y location, relative location, and focal point are captured and transmitted to Tealeaf. A provided set of events is designed to capture the usability data.

- You can optionally associate other events with usability dimensions by using the report group templates that are provided by Tealeaf.

In this section, you learn more about the usability data that is captured for IBM Tealeaf cxOverstat, the data objects that are provided by Tealeaf to record them, and other eventing possibilities for usability data.

- The maximum length for selected values of text for attributes and events is 256 characters.

cxOverstat usability data

IBM Tealeaf cxOverstat data is submitted from the IBM Tealeaf CX UI Capture SDK solution, when it was enabled for IBM Tealeaf cxOverstat.

IBM Tealeaf cxOverstat data comes in the following forms:

Type **Description**

Comparison Analytics
With the Comparison Analytics overlay, you can view selected metrics for a web page and apply specific segments and filters to create customized reports.

- For more information about this feature, see "Comparison Analytics Overlay" in the *IBM Tealeaf cxOverstat User Manual*.

Heat mapping
Identifies regions on a page or ScreenView where visitors click, regardless of whether an object was selected.

- For more information about this feature, see "Using Heat Maps" in the *IBM Tealeaf cxOverstat User Manual*.

Attention mapping
Identifies the regions on a page or ScreenView that are most frequently displayed within the visitor's browser window.

- For more information about this feature, see "Using Attention Maps" in the *IBM Tealeaf cxOverstat User Manual*.

Form Identifies visitor activities on forms on a page or ScreenView.

- For more information about this feature, see "Using Form Analytics" in the *IBM Tealeaf cxOverstat User Manual*.

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Link Identifies links that are most frequently selected by visitors to a page or ScreenView.

- For more information about this feature, see "Using Link Analytics" in the *IBM Tealeaf cxOverstat User Manual*.

Usability Eventing

To support the tracking and recording of usability activities on your web application, IBM Tealeaf provides a set of event objects to process usability data that is submitted in JSON format from the client framework.

For more information about the schema, see "Tealeaf JSON Object Schema Reference" in the *IBM Tealeaf Client Framework Data Integration Guide*.

- For more information about the properties that pertain to IBM Tealeaf cxOverstat, see "Tealeaf JSON Properties" in the *IBM Tealeaf Client Framework Data Integration Guide*.

cxOverstat objects must be enabled

In addition to providing the standard reporting and search capabilities, IBM Tealeaf cxOverstat events are also used by the usability application itself. For example, when the Tealeaf user chooses to display the Form Analytics overlay in Browser Based Replay, the usability components in BBR query the Reporting database for the event data that pertains to form analysis for the current page or ScreenView.

Note: For correct capture and display of usability data in the IBM Tealeaf cxOverstat overlays in Browser Based Replay, all hit attributes, events, and dimensions must be enabled through the Event Manager. By default, these objects are installed and enabled. Disabling can disable usability functions and data.

Goal Based Dimensions

By default, Tealeaf publishes event data as soon as the Canister detects and processes it. IBM Tealeaf cxOverstat events, however, are configured to publish their event data at the end of the session. The event values that were detected at the time the event fired are recorded, but the recording does not occur until the session is completed by the user, or session timeout. This method for event publishing enables the support of the capturing of the dimension values associated with the event from their last occurrence in the session.

For example, suppose you use a dimension to capture whether a purchase was made. Since that information is not known until the end of the session, you can delay the publishing of IBM Tealeaf cxOverstat events and their related dimensions until the end of the session so the definitive answer (Yes or No) is captured in the dimension value.

Note: All IBM Tealeaf cxOverstat events are configured to have their data published at the end of the session. This setting cannot be modified for these events.

See "Goal Based Dimensions" in the *IBM Tealeaf Event Manager Manual*.

Data storage

After the IBM Tealeaf cxOverstat step attributes and events are triggered, they are recorded in the standard locations for Tealeaf.

Session

When the Event Engine detects an event, it records the event as data in the request of the hit on which the event occurred, along with any related dimensional data. IBM Tealeaf cxOverstat events are recorded in this manner.

Below is an example recording of the event + dimension combination in a request:

- These elements of data are written to the bottom of the request for each event that is triggered on the hit.

```
[TLFID_359]
Searchable=True
TLFID=359
TLFactValue=200
TLDimHash1=C6F8B06175B0630687EB80DF913A30CE
TLDimHash2=B0437419D4F0575FABDB726AAE61039C
TLDimHash3=3CFBA54F6873DFD55B0B09D32910B20E
TLDimHash4=0BDB5F014A7574C3B6DCCAD319321FED
TLDimHash5=7954797EAEBD4BD8B816EA63AF1CE05A
TLDimHash6=7954797EAEBD4BD8B816EA63AF1CE05A
TLDimHash7=7954797EAEBD4BD8B816EA63AF1CE05A
TLDimHash8=7954797EAEBD4BD8B816EA63AF1CE05A
TLDim1=/store/defaultpage
TLDim2=www.straussandplesser.com
TLDim3=store
TLDim4=206.169.17.19
TLDim5=TLT$NULL
TLDim6=TLT$NULL
TLDim7=TLT$NULL
TLDim8=TLT$NULL
```

For the listed event + dimension combination (`[TLFID_359]`), the event value (`TLFactValue`) is recorded for the Searchable event.

- Beneath the event value, each possible dimension value is listed in both hashed (`TLDimHash`) and standard (`TLDim`) form.
- Hashed dimension values are stored to support searching for dimension values that are longer than 32 characters. See "Searching Session Data" in the *IBM Tealeaf cxImpact User Manual*.
- For more information about request view in BBR, see "CX Browser Based Replay" in the *IBM Tealeaf cxImpact User Manual*.
- For more information about the data that is stored for events and dimensions in the request, see the **[TLFID_]** section in "RealiTea Viewer - Request View" in the *IBM Tealeaf RealiTea Viewer User Manual*.

Database

Usability data is stored as event counts of the predefined usability events. This data is stored in the Reporting database as normal event data. When a page or ScreenView for stored usability data is displayed in BBR, the application queries the Reporting database for the correct event counts to display in the selected overlay

cxOverstat step attributes

To facilitate the tracking of usability data that is submitted from UI Capture, Tealeaf provides a set of step attributes to track this information.

- When IBM Tealeaf cxOverstat is licensed and enabled, these attributes are automatically enabled, and Tealeaf is tracking usability data.

Note: If you are licensing IBM Tealeaf cxOverstat for an existing Tealeaf installation, you must use the Tealeaf Upgrader to install the IBM Tealeaf cxOverstat event objects. See "cxOverstat Installation and Configuration" in the *IBM Tealeaf cxOverstat User Manual*.

- A step attribute is a hit attribute that is configured to track values that are stored in JSON data that is submitted from a client framework. See "Step-Based Eventing" in the *IBM Tealeaf Event Manager Manual*.
- In the Events tab, these step attributes are contained in the `System Step Attributes`.
- For more information about the step attributes pertaining to IBM Tealeaf cxOverstat, see "Tealeaf JSON Properties" in the *IBM Tealeaf Client Framework Data Integration Guide*.
  - For more information about all event objects that are provided by Tealeaf, see "Tealeaf Standard Event Object Reference" in the *IBM Tealeaf Event Manager Manual*.

cxOverstat events

Usability events require dimensional data in order for them to properly function. The following events are provided by Tealeaf for IBM Tealeaf cxOverstat, and associated with each of these events is a set of pre-configured dimensions.

- In the Events tab, these events are contained in the `System Step Events`.
- Building block events are not displayed in the Portal at all.
- By default, the non-building block events for IBM Tealeaf cxOverstat are configured to be displayed in the Portal for search and reporting purposes. However, they are configured to not be displayed in session lists in the Portal, which includes QuickView and the Page List. While you can modify the event definitions to display them in these views, they are likely to be displayed in every session and thus clutter the display. See "TEM Events Tab" in the *IBM Tealeaf Event Manager Manual*.

Note: Except to add or remove dimensions that you created, do not edit these System Step Events. Do not edit the event definitions or remove any of dimensions that are listed for each event.

Primary Reporting Events

Usability attention map view time, usability click, and usability form field visit are the primary events that are used for the reporting of IBM Tealeaf cxOverstat data.

Table 8. Primary Reporting Events

Event Name	Description	Default Dimensions
Step - Usability Attention Map Y View Time	Attention View Time (Y) Event for Usability data	• ScreenView URL • Step - ScreenView • Step - Usability Focal Slice Y • Step - Usability View Port Height
Step - Usability Click	Click event for Usability data. This event is used for comparison analytics, heat maps, and link analytics data.	• Step - ScreenView URL • Step - ScreenView • Step - Target ID • Step - Target Relative XY

Table 8. Primary Reporting Events (continued)

Event Name	Description	Default Dimensions
Step - Usability Form Field Visit	Field Visits + Dwell time for Event for Usability data	• Step - ScreenView URL • Step - ScreenView • Step - Target ID

By using viaTealeaf, you can access a set of reports that are configured for the usability data that is submitted to Tealeaf.

Building block events

A "building block" event is available in the Short Term Canister while the session is being captured. The event expires when the session is closed and moved to the Long Term Canister. Building block events cannot be used in search or reporting.

See "TEM Events Tab" in the *IBM Tealeaf Event Manager Manual*.

The following table describes the building block events that are defined. These events are unlikely to need modification.

Table 9. Building Block Events

Event Name	Description	Default Dimensions
Step - ScreenView (BB)	(Building Block) Latest ScreenView from ScreenView LOAD message	None
Step - ScreenView URL (BB)	(Building Block) Latest URL from ScreenView LOAD message	None
Step - Usability Attention Map Viewport Height	Normalized Viewport height (min of Viewport or Page height) **Note:** This event can be reviewed and modified in JavaScript only.	None
Step - Usability Focal Slice Y (BB)	(Building Block) Focal Slice BB event for Usability data **Note:** This event can be reviewed and modified in JavaScript only.	None
Step - Usability Target ID + Type (BB)	(Building Block) Combines Target ID and ID Type into a single string **Note:** This event can be reviewed and modified in JavaScript only.	None

- For more information about the events that pertain to IBM Tealeaf cxOverstat, see "Tealeaf JSON Properties" in the *IBM Tealeaf Client Framework Data Integration Guide*.
  - For more information about all event objects that are provided by Tealeaf, see "Tealeaf Standard Event Object Reference" in the *IBM Tealeaf Event Manager Manual*.

cxOverstat dimensions

To capture IBM Tealeaf cxOverstat data for reporting purposes, Tealeaf provides a set of dimensions, which are used to store client usability data.

To locate these dimensions, enter `Step` in the filter text box in the **Dimensions** tab.

Table 10. cxOverstat Dimensions

Dimension Name	Description	Source Event
Step - ScreenView	Records the latest Screenview for each Screenview LOAD message	Step - ScreenView [BB]
Step - ScreenView URL	Records the latest URL for each Screenview LOAD message	Step - ScreenView URL [BB]
Step - Target ID	ID of object that is acted on	Step - Usability Target ID + type [BB]
Step - Target Relative XY	Records the relative position of the action that is based on the object that is acted on	Step - Target Relative XY
Step - Usability Focal Slice Y	Records the Y focal slice. • Dimension includes a predefined whitelist of values for bucketing of slices for reporting.	Step - Usability Focal Slice Y [BB]
Step - Usability View Port Height	Viewport height of the browser window that explores usability overlays • Dimension includes a predefined whitelist of values for bucketing of slices for reporting.	Step - Usability Attention Map Y View Time

For more information about the dimensions that pertain to IBM Tealeaf cxOverstat, see "Tealeaf JSON Properties" in the *IBM Tealeaf Client Framework Data Integration Guide*.

For more information about all event objects that are provided by Tealeaf, see "Tealeaf Standard Event Object Reference" in the *IBM Tealeaf Event Manager Manual*.

cxOverstat report groups

IBM Tealeaf cxOverstat provides a set of report groups that contain the provided IBM Tealeaf cxOverstat dimensions. These report groups are predefined to contain only the dimensions that are required for IBM Tealeaf cxOverstat.

The following list displays the dimensions:

- Usability - Attention Map
- Usability - Click
- Usability - Form Analytics

IBM Tealeaf recommends creating separate report groups for use with the IBM Tealeaf cxOverstat system dimensions and then add dimensions as needed. These custom report groups can be added, modified, and removed as needed.

Note: After a dimension is added to any report group and committed to the database, it cannot be removed. Since you are not allowed to remove the default IBM Tealeaf cxOverstat report groups from the IBM Tealeaf cxOverstat events, any dimensions added to these report groups are retained permanently.

cxOverstat report group templates

For IBM Tealeaf cxImpact, the base report group template is `Standard`. This report group template supports up to four dimensions of your choosing.

For IBM Tealeaf cxOverstat, if you want to associate the usability data with other dimensions for cross-dimensional reporting, you can use report group templates as the basis for creating new report groups. A report group template is a template that contains pre-configured dimensions for a new report group when it is created. The report group template can be selected when you create a report group.

Note: You can create multiple of custom report groups from these templates. Only report groups that are based on these associated templates are available for usability events.

Note: You cannot make report group templates.

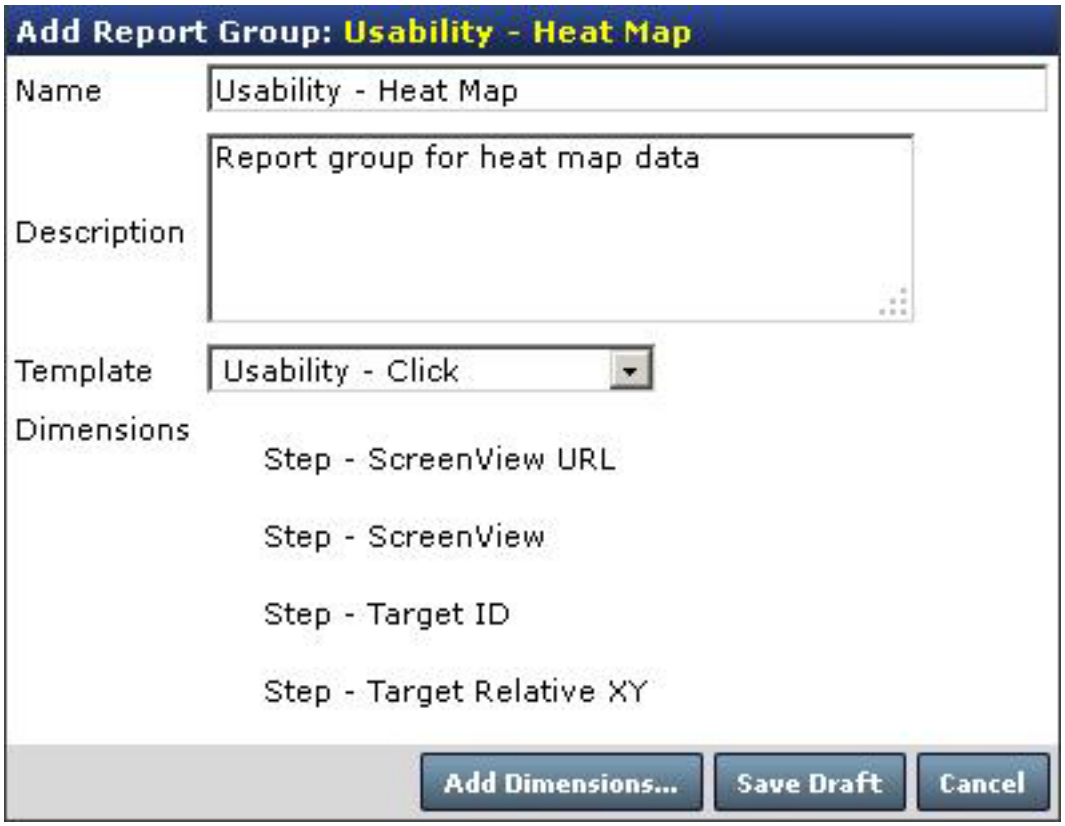

Figure 10. Creating report groups with a Usability template

The following report group templates are available to capture for IBM Tealeaf cxOverstat:

Note: A report group that is created from one of the IBM Tealeaf cxOverstat report group templates can contain up to eight dimensions.

Note: After you select a report group template, choosing a new report group template automatically removes all dimensions from the report group and starts with the included dimensions of the newly selected report group template.

Table 11. cxOverstat Report Group Templates

Name	Description
`Usability - Click`	Events operating on comparison analytics, heat map, or link analytics data require these contextual dimensions
`Usability - Attention Map`	Events operating on attention map data require these contextual dimensions
`Usability - Form Analytics`	Events operating on form analytics data require these contextual dimensions

See "TEM Dimensions Tab" in the *IBM Tealeaf Event Manager Manual*.

Tracking other usability events

The IBM Tealeaf CX UI Capture SDK solution provides more usability data that is not natively captured by Tealeaf. Specifically, you can create custom step messages to submit data of interest to you pertaining to the client activities of your web application.

See "Step-Based Eventing" in the *IBM Tealeaf Event Manager Manual*.

Goal Based Dimensions

By default, Tealeaf events and event-related objects, such as dimensions, are recorded as soon as they occur. This immediate responsiveness ensures that event activity and contextual data are captured as a snapshot of the current state of the session or application.

Goal Based Dimensions enable reporting to be segmented based on factors that occur after the actual event occurrence. For example, you might want to track the count of users who trigger a search on your web application and who failed to complete a purchase transaction. Since it is not possible to evaluate this failure event until all the hits of the session are processed, you must delay the tabulation of the other event, which tracks search + failed to complete, until the end of the session. In this manner, you can define current events to measure the effectiveness of business goals in the session.

Overview

With Goal Based Dimensions, events fire when they occur, yet the data is not published until the end of the session so that all required data to properly evaluate the event is tabulated. Events that are configured to be evaluated at the end of the session are not published until that time. At the end of the session, the last known value for each dimension is back-populated to the event occurrences earlier in the session.

For example, the event that identifies when a user goes to the shopping cart occurs on hit 6, yet there are references to dimensional data populated by this event earlier in the session, on hits 2 and 4.

You can configure the event to properly capture the event on hit 6 and then to apply the dimensional values backward in the session.

For example, the `Went to Cart` event fires on hit 6 and the `Shopping Cart` report group that fires on hits 2 and 4 include a `YES` value for the `Went to Cart` dimension. The populating event is not yet fired at the time of the recording of the report group on the earlier hits.

Note: Since the data is not populated until the end of the session, Goal Based Dimensions and events are not searchable and reportable until after the end of the session, if they are configured to be searchable and reportable in the event definition.

Differences from end of session events

A GBD event can fire multiple times in a session. An event that is configured to fire on the End of Session trigger occurs only one time at the end of the session. As a result, the End of Session event contains none of the context of the hit on which the GBD event occurred.

Event publishing

The firing of an event and its publication are different:

- Firing: When an event is evaluated to be `true`, it is deemed to "fire." In the Canister, when an event fires, a marker for the event is stored on the hit of the event where it was evaluated.
- Publishing: An event is considered to be published when the Canister makes the event and its recorded data available to other Tealeaf services, such as search indexing and the Data Collector.

By default, the Canister publishes an event and its related dimensional data as soon as possible after it fires. With Goal Based Dimensions, the event and its data are not available until the end of the session, even though the event fires normally, as specified.

GBD affects events and dimensions in the following ways:

- Events: Events that use Goal Based Dimensions still evaluate and fire normally. The results of the event evaluation are not written to the database or search indexes until the end of the session.
  - GBD events can be used as building blocks for other events between firing and the end of the session. They behave normally, except that Goal Based Dimensions must not be referenced.
- Dimensions: Goal Based Dimensions are not evaluated at all until the end of session. Until the end of the session, these dimensions are `NULL` values.

  Note: Do not reference the value of a Goal Based Dimension in another event. The values are always `NULL`.
  - Even for other End of Session events, it is not possible to guarantee that the dimension values are populated at the time that the other event is evaluated. It is still possible to record nulls for the dimensions that are associated with other End of Session events.
- Alerts: Since alerts do not use dimensions, alerts that are triggered on GBD events are generated at the time that the event fired, instead of at the time of event publication.
- Session Attributes: User-defined session attributes that reference GBD events are updated at the time that the event fires, instead of at the time of event publication.

When an event is published, the search index is populated with the event value and the related dimension values. If the dimension is configured for delayed publishing and the event is published immediately, then the search index is populated with the correct event value, yet all Goal Based dimensions are recorded with NULL values. By forcing the event and the dimension to be published at the end of the session, the correct values for both event and dimension are recorded for indexing.

Note: The purpose of Goal Based Dimension events is to support the evaluation of dimensions later. As a result, all events that use Goal Based Dimensions must be published at the end of session, and thus IBM® Tealeaf cxOverstat does not contain any data about active sessions.

Note: For this release, the only events that are configured for Goal Based Dimensions are IBM Tealeaf cxOverstat events. No other events can be configured as GBD events. See "Eventing for cxOverstat" in the IBM Tealeaf Event Manager Manual.

Enabling Goal Based Dimensions

For each Processing Server, Goal Based Dimensions are enabled by default. When enabled, a Processing Server detects GBD settings on events and dimensions and publishes the data accordingly.

- Goal Based Dimensions are enabled through the raw configuration of each Canister. See "Configuring the CX Canister" in the *IBM Tealeaf CX Configuration Manual*.

All IBM Tealeaf cxOverstat events are automatically configured for delayed publishing.

- See “Goal Based Dimension events.”

On individual dimensions that are part of IBM Tealeaf cxOverstat report groups, you can configure them to be evaluated and published at the end of the session.

- See “Goal Based Dimensions and report groups.”

Goal Based Dimension events

Note: Since IBM Tealeaf cxOverstat events are configured to be published at the end of a session, IBM Tealeaf cxOverstat does not contain any data about active sessions.

Note: For this release, the only events that are configured for Goal Based Dimensions are IBM Tealeaf cxOverstat events. No other events can be configured as GBD events. See "Eventing for cxOverstat" in the *IBM Tealeaf Event Manager Manual*.

Goal Based Dimensions and report groups

By default, dimensions are evaluated immediately when the event occurs. Optionally, you can configure individual dimensions to be evaluated at the end of the session.

Goal Based Dimensions can be used only in IBM Tealeaf cxOverstat report groups. You can mix delayed and non-delayed dimensions in the same IBM Tealeaf cxOverstat report group. These report groups can be associated only with IBM Tealeaf cxOverstat events.

Chapter 6. Using cxOverstat Snapshot

With cxOverstat Snapshot you can capture page states from live web pages and save them to the Snapshot Gallery. Saving captured page states to the Snapshot Gallery simplifies access to cxOverstat data for selected web pages.

cxOverstat Snapshot captures the current state of a cxOverstat-enabled web page, including all of the data that is typically displayed in cxOverstat overlays.

You can group snapshots into stacks, which is similar to organizing them in folders. Stacks are collections of snapshots. They allow easy access to overlays for specific pages and your most commonly used data. You can add tags to snapshots and stacks to make it easier to search for these items later on.

Installing the cxOverstat Snapshot Capture extension

You must install the Firefox extension to take snapshots.

You must have Firefox installed on your machine.

You will be prompted to install the extension when you log in to cxOverstat Snapshot using Firefox.

1. Log in to the Tealeaf Portal in your Firefox browser.
2. Go to Analyze in the top navigation bar and select Snapshots from the dropdown menu.
3. Follow the prompts to install the Firefox extension. Once installed, the extension appears in your browser's toolbar with the following icons: and .

Taking Snapshots

You can take snapshots by using the keyboard shortcut or the extension. With the keyboard shortcut, you can use mouse actions to trigger certain events -like click or hover elements- while simultaneously capturing a snapshot of the screen. Using the extension, you can capture the state of a web page by clicking one button.

Customizing your keyboard shortcut

You have the option of using a keyboard shortcut to take snapshots. The shortcut is a series of keystrokes that can be customized to your preferences.

To customize your keyboard shortcut:

1. In the right sidebar, click the dropdown arrow next to Settings.
2. From here, you can enter the shortcut of your choice in the form field.

Taking a Snapshot

You can take snapshots of specific web pages that you want to analyze.

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Note: Before you capture your snapshot, it is recommended to either clear the browser cache before a page load, or disable browser caching entirely, in order to avoid gaps in the snapshot. To disable caching in Firefox, set your browser to "Do not remember history."

1. Go to the web page for which you want to take snapshots.
2. Click the Firefox extension.
3. If you are not already logged in, a pop-up window is displayed, prompting you to log in to the Tealeaf Portal.
4. Press your keyboard shortcut to take a snapshot. This creates a snapshot and saves it to the Gallery.
5. After you take a snapshot, a menu is displayed, where you can enter information about your Snapshot. Enter the name, add any tags, and move the Snapshot to the appropriate stack.

You can access your saved snapshots through the cxOverstat Snapshot Gallery.

Working with snapshots

With the cxOverstat Snapshot Gallery you can view your collection of snapshots, edit snapshot properties, view snapshot overlays, delete snapshots, and organize snapshots into stacks.

Renaming a snapshot

You can rename a snapshot in order to improve organization and make it easier to locate snapshots.

1. Right-click the current name as displayed in the Gallery. A form is displayed, highlighting the current name of the snapshot.
2. Enter a new name for the selected snapshot.

Adding tags to a snapshot

You can add tags to snapshots in order to improve organization and make it easier to locate snapshots.

1. Select **Preview** for the stack you want to work with.
2. Hover over the selected snapshot. Click the tag icon .
3. After you click the tag icon, the box expands. Add tags to the snapshot by clicking the blue button labeled **Click to add tag** and type in the tag of your choice.

For more information on tags, see “Working with tags.”

Deleting snapshots

You can delete snapshots that are no longer useful. However, you can only delete snapshots that you created.

1. Hover over the snapshot you want to delete.
2. A bar is displayed, containing a trash can icon . Click the trash can icon to delete the snapshot.

Viewing overlays on a snapshot

You can view overlays on a snapshot in order to analyze data.

1. Choose a snapshot that you want to work with.
2. Choose an overlay to display by using the **Select Overlay** button in the top left of the viewer.

For more information on overlays, see "Chapter 3. cxOverstat overlays."

Working with stacks

You can use stacks to organize snapshots. Group snapshots into stacks that are based on your own unique criteria.

Previewing stacks

When previewing stacks you can view snapshots that are contained within each stack, and remove unwanted snapshots from the stack.

1. In the Gallery, hover over the stack you would like to preview.
2. A bar is displayed over the thumbnail you selected. Click **Preview** to expand.

Viewing snapshots in a stack

You can view snapshots in a stack. From here you can select overlays and view analytics for each snapshot.

1. In the Gallery, hover over the stack you would like to view.
2. A bar is displayed over the thumbnail you are viewing. Click **Preview** to expand.
3. Click the snapshot that you want to view.

Adding snapshots to a stack

You can move snapshots from the Snapshot Gallery and add them to stacks.

1. In the Snapshot Gallery, hover over the stack you want to work with. Click the plus icon. You are directed to Snapshot Selection Mode.
2. In Snapshot Selection Mode, click the snapshots you want to add to the stack. The selected snapshots are highlighted blue when selected.
3. Click the **Add to Stack** button at the bottom of the screen.

Removing snapshots from a stack

You can remove unwanted snapshots from a stack.

1. In the Gallery, hover over the stack you want to remove.
2. A menu is displayed over the thumbnail. Click the X to remove the snapshot from the stack.

Deleting stacks

You can delete an entire stack, and all snapshots contained within the stack.

1. In the Gallery, hover over the stack you want to delete.
2. A menu is displayed over the thumbnail. Click the trash can icon to delete the stack.

Moving snapshots in a stack

You can move snapshots within a stack using the drag and drop function.

1. Navigate to the stack you want to work with within the Tealeaf Portal.
2. With your cursor, click on the snapshot you want to move and drag it to a new location within the stack.
3. Release the snapshot in it's new location.

Working with tags

You can use tags to organize snapshots and locate information more easily when analyzing data.

Creating tags

You can create and add tags to snapshots and stacks in order to improve organization.

1. In the left panel of the Gallery, right click with your mouse. A dropdown menu is displayed. Choose **Create new tag**.
2. On the top of the left panel in the Gallery, click **Create**.

Renaming tags

You can rename tags if necessary.

1. In the left sidebar in the Gallery, right-click the tag that you want to rename.
2. A dropdown menu is displayed. Select **Rename**.

Removing tags

You can remove unnecessary tags from snapshots and stacks. When using this method of removal, tags will not be permanently deleted, but simply removed from the selected element.

1. In the Gallery, hover over the stack you want to work with. When you click the tag icon , the page expands.
2. Choose which tag you want to remove from this stack by hovering over the tag and clicking the red X.

Deleting tags

You can permanently delete tags that are no longer necessary.

1. In the left sidebar in the Gallery, right-click the tag that you want to delete.
2. A dropdown menu is displayed. Select **Delete**.

Adding tags to snapshots

Adding tags to a snapshot can help improve organization and make it easier to locate specific snapshots when analyzing data.

1. In the right sidebar, hover over the thumbnail of your selected snapshot. A menu that contains a tag icon is displayed.
2. When you click the tag icon, the sidebar expands, revealing any tags that are already applied to this image, and the **Click to add tag** button.

3. Clicking the **Click to add tag** button reveals a drop down menu that contains recently used tags. When you begin typing, the recently used tags menu disappears, and is replaced by automatic tag suggestions that are based on the first letters of the word you enter.

Apply All: Clicking **Apply All** in the recently used tags drop down menu adds all recently used tags to the selected snapshot.

Remove: To remove a tag from a snapshot, hover over the selected tag. A red X is displayed. Click the red X to remove the tag from the selected snapshot.

Repeat: To apply a tag to future snapshots, hover over the selected tag. A repeat symbol is displayed. Click the repeat symbol to repeat the tag for future snapshots. Click the **Repeat** button once more to stop repeating the tag.

Adding tags to stacks

Adding tags to stacks can help improve organization and make it easier to locate specific information when analyzing data.

1. In the Gallery, hover over the stack you want to work with. A menu that contains a tag icon is displayed.
2. When you click the tag icon, the page expands. Click the blue tag icon labeled **Click to add tag**.

Auto Suggest: As you add more tags, Tealeaf automatically suggests potential tags for you based on tags that are already in the database.

Chapter 7. Troubleshooting

Use the following troubleshooting table to find solutions to common problems with installation and configuration of cxOverstat.

The following table lists corrective actions to some of the common problems that might occur after you install and configure cxOverstat.

Table 12. cxOverstat

Symptom	Action
The **Overlays** menu option in BBR cannot be selected when you view a page that has the cxOverstat UI SDK enabled.	Make sure that the browser you are using to replay the session supports HTML5. For a list of prerequisites to use cxOverstat, see "Prerequisites" on page 7. If you are viewing a mobile session, you must have CX Mobile license.
cxOverstat is capturing data from bots.	You can filter traffic from bots by editing the **Step - Usability Event Filter [BB]** event. For more information on editing an event, see the IBM Tealeaf Event Manager Manual. 1. From the Tealeaf Portal, go to the Tealeaf Event Manager. 2. Click **Tealeaf Standard Events** in the **Filter Events** menu. 3. Double-click **Step - Usability Event Filter [BB]** to edit the event. 4. Go to the **Conditions** tab. 5. Click **Add Condition** to add a hit attribute. 6. From the **Hit Attributes**, click **System Hit Attributes**, then select **Traffic Type**. 7. Edit the hit attribute by setting the **Traffic Type** to `First Value Not Equal BOT`; then, select **A≠a**. 8. Click **Add Condition** to add a hit attribute. 9. From the **Hit Attributes**, click **System Hit Attributes**, then select **Traffic Type**. 10. Edit the hit attribute by setting the **Traffic Type** to `First Value Not Equal MOBILE_BOT`. Also, make sure that **A≠a** is selected. 11. Make sure that the Set the Step - Usability URL Dim Check [BB] event to `Does not include TLT$` event condition is listed. If this event condition is missing, then you need to add the condition. 12. Make sure that the event is active by selecting the **Active** option. 13. Save your changes by clicking **Save Draft**, then **Save Changes**.

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Table 12. cxOverstat (continued)

Symptom	Action
The row count for the `Step - Target ID` dimension is growing at a fast rate when compared to other dimensions in the database group.	Monitor the growth rate by logging in to the Tealeaf Portal, then click **Tealeaf**, **Database Table size**, and select **Dimension** for the Data Group. If the growth rate does not stabilize, examine the target IDs to begin the troubleshooting process. If new element IDs are constantly generated on a web page, `Step - Target ID` captures each new ID.
Overlays for web pages that have dynamic URLs are not loading in BBR.	The `Step - ScreenView URL` dimension uses the original URL for the captured web page in place of using `TLT_URL`, which can prevent BBR from locating and displaying web pages that use dynamic URLs.

Logging:

IBM Tealeaf cxOverstat log messages are written into the Portal log file. The file is in the following location on the Portal Server:

`<Tealeaf_install_directory>\Logs\TLPortal_YYYYMMDD.log`

where `YYYYMMDD` is a date stamp.

Logging

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where `YYYYMMDD` is a date stamp.

Chapter 8. IBM Tealeaf documentation and help

IBM Tealeaf provides documentation and help for users, developers, and administrators.

Viewing product documentation

All IBM Tealeaf product documentation is available at the following website:

https://tealeaf.support.ibmcloud.com/

Use the information in the following table to view the product documentation for IBM Tealeaf:

Table 13. Getting help

To view...	**Do this...**
Product documentation	On the IBM Tealeaf portal, go to **?** > **Product Documentation**.
IBM Tealeaf Knowledge Center	On the IBM Tealeaf portal, go to **?** > **Product Documentation** and select *IBM Tealeaf Customer Experience in the ExperienceOne Knowledge Center*.
Help for a page on the IBM Tealeaf Portal	On the IBM Tealeaf portal, go to **?** > **Help for This Page**.
Help for IBM Tealeaf CX PCA	On the IBM Tealeaf CX PCA web interface, select **Guide** to access the *IBM Tealeaf CX PCA Manual*.

Available documents for IBM Tealeaf products

The following table is a list of available documents for all IBM Tealeaf products:

Table 14. Available documentation for IBM Tealeaf products.

IBM Tealeaf products	**Available documents**
IBM Tealeaf CX	• *IBM Tealeaf Customer Experience Overview Guide* • *IBM Tealeaf CX Client Framework Data Integration Guide* • *IBM Tealeaf CX Configuration Manual* • *IBM Tealeaf CX Cookie Injector Manual* • *IBM Tealeaf CX Databases Guide* • *IBM Tealeaf CX Event Manager Manual* • *IBM Tealeaf CX Glossary* • *IBM Tealeaf CX Installation Manual* • *IBM Tealeaf CX PCA Manual* • *IBM Tealeaf CX PCA Release Notes*

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Table 14. Available documentation for IBM Tealeaf products (continued).

IBM Tealeaf products	Available documents
IBM Tealeaf CX	• *IBM Tealeaf CX RealiTea Viewer Client Side Capture Manual* • *IBM Tealeaf CX RealiTea Viewer User Manual* • *IBM Tealeaf CX Release Notes* • *IBM Tealeaf CX Release Upgrade Manual* • *IBM Tealeaf CX Support Troubleshooting FAQ* • *IBM Tealeaf CX Troubleshooting Guide* • *IBM Tealeaf CX UI Capture j2 Guide* • *IBM Tealeaf CX UI Capture j2 Release Notes*
IBM Tealeaf cxImpact	• *IBM Tealeaf cxImpact Administration Manual* • *IBM Tealeaf cxImpact User Manual* • *IBM Tealeaf cxImpact Reporting Guide*
IBM Tealeaf cxConnect	• *IBM Tealeaf cxConnect for Data Analysis Administration Manual* • *IBM Tealeaf cxConnect for Voice of Customer Administration Manual* • *IBM Tealeaf cxConnect for Web Analytics Administration Manual*
IBM Tealeaf cxOverstat	*IBM Tealeaf cxOverstat User Manual*
IBM Tealeaf cxReveal	• *IBM Tealeaf cxReveal Administration Manual* • *IBM Tealeaf cxReveal API Guide* • *IBM Tealeaf cxReveal User Manual*
IBM Tealeaf cxVerify	• *IBM Tealeaf cxVerify Installation Guide* • *IBM Tealeaf cxVerify User's Guide*
IBM Tealeaf cxView	*IBM Tealeaf cxView User's Guide*
IBM Tealeaf CX Mobile	• *IBM Tealeaf CX Mobile Android Logging Framework Guide* • *IBM Tealeaf Android Logging Framework Release Notes* • *IBM Tealeaf CX Mobile Administration Manual* • *IBM Tealeaf CX Mobile User Manual* • *IBM Tealeaf CX Mobile iOS Logging Framework Guide* • *IBM Tealeaf iOS Logging Framework Release Notes*

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